A SALUTO-ECOLOGICAL PERSPECTIVE OF MASS PARTICIPATION SPORT EVENTS IN PEMBROKESHIRE

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Declaration

This work has not previously been accepted in substance for any degree and is not being concurrently submitted in candidature for any degree.

Signed: Kate Piper (candidate)

Date: 29/01/2022

STATEMENT 1

This thesis is the result of my own investigations, except where otherwise stated. Where correction services have been used the extent and nature of the correction is clearly marked in a footnote(s). Other sources are acknowledged by footnotes giving explicit references. A bibliography is appended.

Signed: Kate Piper (candidate)

Date: 29/01/2022

STATEMENT 2

I hereby give consent for my thesis, if accepted, to be available for deposit in the University's digital repository**.**

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Date: 29/01/2022

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Abstract

Background and context

Mass participation sport events (MPSEs) have grown in popularity. Specifically, in Pembrokeshire, West Wales, participation has seen a continued increase in participant numbers and events over the last decade. Moreover, extremely high numbers of Pembrokeshire residents are taking part in MPSE physical activity (both events and activity). Current research provides a narrow demonstration of the role of MPSE physical activity participation in public health and the relationship between the events and the community that hosts them.

The aim of this study is to explore a saluto-ecological perspective of mass participation sport events in Pembrokeshire.

Methods

The study adopted a three-phase sequential mixed method design. Each phase included multiple qualitative methods as well as a concurrent nested design in the second phase to include quantitative methods. Qualitative methods include document analysis of online sources of information (such as blogs, county council reports and newspaper articles); ethnographies of events and interviews with MPSE participants and members of the community. Quantitative methods included three surveys (one demographic and two motivation questionnaires).

Findings

Three major findings are presented: 1) Habitual physical activity goes beyond physical health benefits or health-risk avoidance and plays a more significant role in a salutogenic perspective of health and wellbeing.; 2) Interacting resources supported individuals' engagement and continued participation in physical activity; 3) There is a mutual dependence between events and the community.

Conclusion

This study demonstrates that habitual physical activity transcends physical health benefits or risk avoidance and plays a more significant role in a salutogenic perspective of health and wellbeing. Additionally, interacting resources from the individuals and their environments are fundamental to support continued engagement in physical activity. Finally, by demonstrating the role of the wider community in successful events, this study demonstrates the closeness to which destination marketing organisations (DMOs), and event managers must work with communities to ensure their continued support.

Table of Contents

Glossary of Terms

GLOSSARY TERM	GLOSSARY DEFINITION
MASS PARTICIPATION SPORT EVENTS	This term refers to any event type activity. Most specifically, mass participation, inclusive of one to multiple disciplines, competitive and non-competitive events.
EVENTS	
PARKRUN	parkruns are free, weekly, community events all around the world. Saturday morning events are 5k and take place in parks and open spaces
MARATHON	26 mile run
HALF MARATHON	13 mile run
TRIATHLON	Event including swim, cycle and run legs. This phrase can also be used for events with the different disciplines other than the traditional (for example, kayaking, cross-country skiing ice skating have all been included in different triathlons).
DUATHLON	Event involving running and cycling. Normally three legs (run-bike-run).
SUPER SPRINT TRIATHLON	Smallest distance triathlons. Commonly 400m swim, 10k bike and 2.5k run
SPRINT TRIATHLON	Commonly 750m swim, 20k bike, 5k run
MIDDLE DISTANCE TRIATHLON [HALF-IRONMAN] [IRONMAN 70.3]	1.9k swim, 90k bike, 21.2k run
OLYMPIC TRIATHLON	1500m swim, 40k bike, 10k run
IRONMAN	2.4 mile swim, 112 mile bike, 26.2 mile run
TRANSITION	The element of triathlons or duathlons where participants change from one discipline to the other.
ULTRA- DISTANCES	Ultra in any event is milage over traditional distances.

TRADITIONAL MPSES	Any event based on swim bike and/or run.
NON-TRADITIONAL MPSES	This phrase has been used for contemporary events such as theme-base and obstacle.
SPORTIF/ SPORTIVE	Non-competitive bike rides, normally several different distances on the day.
SWIM/RUN	Event involving the two disciplines with multiple legs of each alternating between the disciplines through the course.
FELL-RUNNING/ TRAIL RUNNING	Off road, fell-running normally involves hills and off road terrain.
PEMBROKESHIRE EVENTS	
IRONMAN WALES	Ironman distance triathlon, across the south of Pembrokeshire with its transition and finish line in Tenby.
LONG COURSE WEEKEND	'Ironman Triathlon across three days'. Each day involves several different distances around one discipline. Friday – Swim, Saturday – bike, Sunday – run events. Each day distances range from 5k run to a 2.4 mile swim.
TENFOOT SWIM	Depending on tides this is a 5k open water sea swim from Tenby to Saundersfoot. In recent years the organisers also host a swim/run on the same day.
CARTEN	100mile bike ride from Cardiff to Tenby
PRESELI BEAST	Originally a 31mile/ 6,000ft fell-running event, now the day offers the 31mile as well as 24mile/4,500ft and a 11mile/1,700ft.
TOUR OF PEMBROKESHIRE	A sportif of several distances across one day held in the north of Pembrokeshire. Distances range from 23.3 miles (1312 feet elevation) to 105 miles (9727ft elevation).
GOTRI	Initiative organised by British Triathlon to help people try their first triathlon. Many people take part in these events.

	Pembrokeshire holds several through the season. The Tenby distances are 400m indoor swim, 20k bike, 5k run.
ACADEMIC TERMS	
SALUTOGENESIS	The salutogenic theory of health, by Aaron Antonvosky, which focuses attention on "what creates health rather than only what are the limitations and the causes of disease" (Antonovsky, 1979, p. 12)
SENSE OF COHERENCE	"… a global orientation that expresses the extent to which one has a pervasive, enduring though dynamic feeling of confidence that one's internal and external environments are predictable and that there is a high probability that things will work out as well as can reasonably be expected". (Antonovsky, 1979, p. 123).
PHYSICAL LITERACY	"Physical literacy can be described as the motivation, confidence, physical competence, knowledge and understanding to value and take responsibility for engagement in physical activities for life." (IPLA, 2017)

List of Tables and Figures

List of Tables

List of Figures

1. Introduction

1.1 Research Problem

The UK has seen a huge rise in mass participation sport events (MPSEs) over the last twenty years. Not only are the biggest individual races in the UK seeing record rises in entry ballots (London Marathon, 2019; Great North Run (Fuller, 2017)), but many more MPSEs are being created to match demand. For example, British Triathlon (2020) has seen a continued rise in memberships, permitted events and number of participants across the UK with an 86% increase in race starts since 2009. This rise in popularity has seen the value of the industry rise dramatically. Triathlon Industry Association (TIA, 2013) reported the value at £192 million in 2013, and in their most recent studies reported the industry was valued at £417.5m in 2016 and rose again to £475m in 2019 (TIA, 2019). The rise and popularity have not only been seen by events of traditional disciplines (running, cycling and swimming) but many new and different events have been created to deal with the rise in interest. For example, a popular 'non-traditional' style are obstacle course events. These events have established themselves in the market and proved so popular that "named brands" of events have become internationally known (toughmudder©, Spartan Race©).

South Wales has also seen a similar growth in events and participation. For example, the 2020 Cardiff half marathon sold out in record time (Cardiff Half Marathon, 2020). Anecdotally, even after the COVID pandemic disrupted the 2020 and 2021 seasons, event organisers in South Wales have postponed rather than cancelled race dates, and Ironman© have introduced a new event in the area for 2022 that has already sold out (Ironman, 2021). Moreover, out of 42 parkrun© weekly events held in Wales, 28 events occur in South Wales (Parkrun, 2021).

Specifically in Pembrokeshire, Ironman reported the highest number of local participants had entered Ironman Wales in 2014, numbering 191 Pembrokeshire resident athletes, bigger than any other Ironman event globally (Ironman, 2014; Appendix 1). The same article stated, "Pembrokeshire county residents boast an astonishing 180 athletes per one hundred thousand population, compared to a UK average of just 11" (Ironman, 2014, Appendix 1). Data received from Ironman (personal correspondence with Operations Director, Rachel Jackson, 2019; Appendix 2)

identified 791 Pembrokeshire athletes registered for the annual Ironman Wales event from 2012 to 2019. Using this data, as of 2019, Pembrokeshire county residents now boast 632 Ironman athletes per 100,000 population. It is not just Ironman Wales that has reached its tenth annual event (due to happen in 2022, postponed from 2020). Activity Wales Events, organiser of several events across South Wales as well as many international events following their Long Course Weekend (LCW) structure, started in Pembrokeshire in 2011. Personal correspondence and data from Activity Wales Events shows that their Pembrokeshire events have sold out for the last seven years. Not only has this organiser continued to create events in the area, but they have also introduced different distance levels to their event days – introducing many shorter events as an inclusion strategy to LCW Pembrokeshire and shorter distance triathlons to other event days. Additionally, other local event organisers, Tour of Pembrokeshire (since 2012) and Tenfoot (since 2017) have added several different distances to their event day or created other subsidiary events since their main event's inception. Anecdotally, this demonstrates the sustained MPSE engagement of Pembrokeshire residents over the last ten years.

With so many events, and high levels of participation for a small rural county, there are signs of a unique phenomenon in Pembrokeshire. Research into this phenomenon provides key understandings for many sectors of society. The primary research interest is to explore the reasons behind this continued, high level participation behaviours of residents across a range of MPSEs in Pembrokeshire. Understanding what has sustained this engagement has potential public health benefits. Additionally, participation in many of these events requires intense engagement in physical activity above the recommended guidance for health benefits of 150 minutes per week (WHO, 2020; Lancet, 2020). Hence, motivations and commitment from the view of the participants would provide wider understanding of perceived benefits.

Pembrokeshire is an area of outstanding natural beauty (visitpembrokeshire, 2021). In 2019 there were 125,800 residents, with 71,600 of those aged between 16 and 64 years of age (ONS, 2019a). As the only coastal National Park in the UK, Pembrokeshire has over fifty beaches and a 420km coastline. The Pembrokeshire Coast National Park is 240 square miles, where you are never more than ten miles from the sea (Pembrokeshire Coast, 2021). Two signature events covering the majority of

Pembrokeshire also show the challenging elevation of the area. For example, the longest cycle route in the Tour of Pembrokeshire (north of the county) includes 9727 feet of climbing over 105 miles (Tour of Pembrokeshire, 2021). Furthermore, Ironman Wales includes a 112-mile bike leg with 8378 feet of climbing across the south of the county (Ironman, 2021a). A map of Pembrokeshire and race route coverage can be found in Appendix 3a.

It was these surroundings that provided the perfect backdrop for MPSEs, for example, one organiser from the area stated, “we wanted to put a marathon on in Tenby and around Pembrokeshire because of the coastline and beauty of the natural surroundings” (Evans, speaking to Western Mail, 2017). The surroundings also make the events notoriously challenging (Smith, 2018; Tenby Observer, 2018; visitwales, 2021). This has made a unique name for Pembrokeshire as a sport-tourism destination, especially for hosting and participating in MPSEs (visitwales, 2021).

Events in the area have provided additional value to the already substantial tourism offer of the county (Pembrokeshire County Council, 2018; 2017). A 2019 economic Volume and Value Report carried out by Visit Pembrokeshire showed the county welcome seven million visitors annually (visitpembrokeshire, 2021). However, tourism in Pembrokeshire is highly dependent on the seasons, with75% of trade happening from March to October each year (visitpembrokeshire, 2020). The most popular MPSEs happen between these months also, with the MPSE season needing the milder weather, for safety and participant comfort.

Consequently, this raises additional concerns. Interestingly, the main tourism website for Pembrokeshire also notes the stress that tourism can bring, “we are fortunate to live in an area of great natural beauty, but we are also guardians of a fragile environment” and highlight the “pressures associated with overcrowding” being a threat to the existing conditions in the area (visitpembrokeshire, 2021).

Therefore, a secondary research interest is the relationship between the resident community and MPSEs, whether for participation or wider benefits.

Before moving on to positioning the study in literature, it is vital to explain why the study is using the term mass participation sport events (MPSEs). It was important to not limit the study by the phrase used. A term was needed that considered all types of

events (triathlon, marathons, sportif etc) held in Pembrokeshire and could be used as a 'catch-all' or umbrella term to be used throughout the study. There were three main key terms used throughout the literature covering these types of events.

Firstly, the term '*mass sport events'* has been used to consider the relevant types of events (Rauter and Topic, 2013). However, the phrase has been used as a collective term for any community level event. For example, Cloes et al. (2000: 1) use this term to not only discuss a "10k jog" and a "mountain bike ride", but also a volleyball tournament… inter-cities sport festivals and a karting race. The term has also been used as a collective term for international spectator sport events (for example the UEFA tournaments) (Wazny, 2021). Therefore, this term would cause too much confusion because of its many uses. Secondly, the term '*endurance sport events'* have been used to cover relevant types of events. For example, Burke et al. (2018) defines the term as events that range from 30minutes to 24 hours. However, in many other articles this term has been used to focus exclusively on longer distance events, from ultra-distance cross-country skiing (Sagheim and Aas, 2019) to ultra-distance cycle event (Moyen et al., 2015). Although this term is more suitable it is important to make sure that the small distances and community events (such as parkrun©) are included. The third term, '*mass participation sport events'* has a greater emphasis on one of the key features of these events (mass participation). This term has been used by many of the most highly cited articles focused on relevant events and focused on 'non-elite' engagement (e.g. Funk et al., 2011; Crofts et al., 2012).

Although MPSEs was the term used in this study, literature reviewed through the research also used types of events, as well as phrases above, as key words in literature searching. Additionally, depending on the field of literature and a focus on certain events other phrases were used. For example, in the field of sport and adventure tourism, authors such as Coghlan and Filo (2013) refer to charity sport events and philanthropic adventure travel. Using many different names for these events proved difficult to collect all relevant literature, understand what we already know, and identify the gaps in literature needing further research. Therefore, it was vital to position this study in areas of literature that would appreciate the complexity of the research problem.

1.2 Study Position

The information above has demonstrated the long-term commitment of Pembrokeshire residents to their engagement in MPSEs. Serious Leisure literature provides the first field to situate the study. Serious Leisure, introduced by Stebbins (1982, 1992, 2007), is defined as,

> "the steady pursuit of an amateur, hobbyist, or career volunteer activity that captivates its participants with its complexity and many challenges. It is profound, long-lasting, and invariably based on substantial skill, knowledge, or experience, if not a combination of these three" (Stebbins, 1992: 3).

In his seminal work Stebbins (1992) identified six qualities of serious leisure, namely, the need for perseverance; a career in the pursuit (potentially working from entry level events such as parkrun, or smaller distance events to progressing to longer events or competing at a higher level); significant personal effort, strong identification; a unique ethos; and durable benefits. When commenting on these qualities Getz (2020) identified self-fulfilment, enhancement of self-concept, self-esteem, and social identity as personal benefits arising from these six qualities.

There have been many supporters of the concept of serious leisure with Martin (2008: 274) describing the Serious Leisure Perspective (SLP) as "a complete theory of leisure involvement". Similarly, many adopt the SLP as a theoretical foundation for their study (Green and Jones, 2005: 166; Shinew and Parry, 2005: 370; Heley and Jones, 2013: 277; Butler, 2010: iii). However, others have been critical of the Perspective describing it as nothing more than a taxonomy (Puddephatt, 2007:1) or "overly descriptive" (Breeze, 2013: 24). Veal (2017) also highlight concepts that are linked to serious leisure but are rarely mentioned by Stebbins (for example, specialisation, constraints, and needs-based research). Although this study does not use serious leisure as a foundational theory, the concept provides great insight into the role these events and their linked processes have, in the lifestyles of those that take part. More recent work by Stebbins (2017, 2020) provides an analytic scheme based on micro-, meso- and macro level phenomena. Stebbins (2017) demonstrates that the domain of leisure exists in these three levels simultaneously. By applying the work of Turner (2005), Stebbins (2020 and 2017) explores the "embeddedness" of leisure. He highlights the

importance of both the individual and contextual approaches as leisure is both experienced by the individual and seen as set in the wider social and cultural world.

Constructs that also tie to serious leisure are involvement and commitment. As part of the multidimensional construct of leisure involvement, Kyle and Chick (2002) presented three key dimensions as:

- Attraction: the importance and interest an individual gives to a particular activity and the pleasure they get from taking part.
- Sign: prestige linked to event, what taking part says about the individual
- Centrality: the social context and role of the activity on the individual's lifestyle.

Kyle et al. (2007) have also created a scale that emphasises the social aspect with items that focus on centrality as well as social bonding, alongside other subscales such as attraction, identity and affirmation. In the context of leisure, Kim et al. (1997: 323) defined commitment as "those persona; and behavioural mechanisms that bind individuals to consistent patterns of leisure behaviour". Kim et al. (1997) also explored the influence of ideas such as dedication, clarity and social considerations.

Serious leisure perspective has been used for many types of leisure activities, from creative arts and music (Liu and Stebbins, 2014; Bull and Scharff, 2017; Lewis, 2020) to gardening (Cheng et al., 2017) and birdwatching (Tsaur and Liang, 2008). Additionally, a serious leisure perspective has been used to cover many types of sports such as kayaking (Bartram, 2001); golf (Siegenthaler and O'Dell, 2003), and mountain climbing (Dilley and Scraton, 2010). Moreover, many studies within serious leisure literature, have focused on the different types of events included as mass participation sports events. From an individual perspective, literature and research has shown the connection with running events and effort, both physical and psychological (Masters et al., 1993; Ogles and Masters, 2003; Shipway and Jones, 2007; Heo et al., 2013; Robinson et al., 2014). Amateur athletes also make significant lifestyle adjustments to make room for their sporting endeavours (Hill and Robinson, 1991; Lev and Zach, 2020). For example, developed skills and knowledge allows an individual to develop activity 'careers' and keep engaged, for example creating detailed training plans and strategies, nutrition, and equipment information (Bartram, 2001; Shipway and Jones, 2007; Cheng and Tsaur, 2012). Moreover, Masters et al. (1993: 135) explains that it is

not as simple as just arriving at the start line and going until the finish, it requires not only the "physical and psychological effort [but] also altered work and eating schedules, cancel or postpone engagements, spend time away from families, and so on". Likewise, an autoethnography from McCarville (2007) strengthens this argument by illustrating the idea of training and events going hand-in-hand as one experience. It is therefore pertinent to consider training experiences and activities as important as the event participation itself. Therefore, throughout the study the phrases 'MPSE', 'physical activity', and 'MPSE physical activity' are used synonymously to encapsulate the fullest picture of MPSE engagement.

Not only can these activities, based around MPSEs, be a basis for individual identity (Allen Collinson and Hockey, 2007), they can also provide social identity and support networks (McCarville, 2007; Shipway and Jones, 2007; Shipway, Holloway and Jones, 2013). Interestingly, although shared culture and sense of community has been seen among distance runners (Ogles and Masters, 2000; 2003), Hitchings and Latham (2017) found that being part of a shared culture was less important than other features for recreational runners, such as those who attend parkrun events. However, Hindley (2018) found that other groups of 'parkrunners' valued the communal experiences, such as incidental conversations. Similarly, Wiltshire and Stevinson (2018) found that parkrun was recognised as community that supported the participants' engagement and their recreational runner identity. The importance of social identity has been highlighted by many, it has been argued that social identity could serve as the starting point for serious leisure where other characteristics are developed off the back of, and used to strengthen social identity (Jones, 2000; Shipway and Jones, 2007; Robinson et al., 2014; Lee et al. 2016). That said, support, encouragement and understanding from significant others (family) is vital (Goodsell and Harris, 2011). Moreover, a recent study found that "the partnership may crumble due to the identity transformation of one of the partners when the other doesn't play an active part in the new social world" (Lev and Zach, 2020: 521). Nevertheless, Furness (2010: 9) argues that these activities only "become meaningful through its relationship to an entire field of cultural practices, discourses and social forces".

More specifically, MPSEs have been the focus of many areas of literature. For example, examining nutritional issues (Stellingwerff (2012) focused on marathon running; Cox et

al. (2010) considered carbohydrate intake in Olympic-Distance triathlon); illness and injury concerns (for example, Rooney et al. (2020) have provided a recent systematic review of injuries and illnesses in road cycling); and performance levels (for example, Du et al. (2015) demonstrate the connection between personal performance and event satisfaction in road running events).

One of the most common foci of research around these events are the participants' motivation (Funk et al., 2011; Coleman and Sebire, 2016; Buning and Walker, 2016; Lane et al., 2010; Rundio et al., 2014; Rauter, 2014; LaChausse 2006; Crofts et al., 2012; Willem et al., 2017). Many studies looked to identify the key motives of participants to understand engagement. Interestingly, many different motives have been linked to MPSEs. Both intrinsic and extrinsic motives have been highlighted by research as key to participation (Coleman and Sebire, 2016; Lamont and Kenelly, 2012). Key motives raised across literature are enjoyment, competition and goal achievement, health and wellbeing, and sociability. For example, Funk et al. (2011) explore goal achievement and event satisfaction in running events. Whereas Coleman and Sebire (2016) and Lamont and Kenelly (2012) explore goals and motivation in a running event and triathlon respectively. Where charity MPSEs were researched, altruism was a key motive for those taking part (Rundio et al., 2014; Bennett, 2007; Lane et al., 2010).

Research has also differentiated motives between demographic groups (specifically, gender) and types of events. Older studies concluded that women were more interested in social and wellbeing reasons to participate whereas men participated for competitive reasons (Summers et al., 1983; Ogles et al., 1995; LaChausse, 2006). A more recent study from Malchrowicz-Mosko et al. (2019) saw similar, where women participated because it gave them happiness (and healthy lifestyles), and men – the desire to be better (and to be physical active and fit). That said, a study focused on women only races identified challenge and competition the key motives among the women (Crofts et al., 2012). Clearly, many motives are linked to participation in MPSEs. Notably, the interest in gender focus has followed the rise of female participants. For example, Triathlon Industry Association (TIA, 2019) demonstrated that women comprised 32% of the triathlon community compared to 26% in 2013. This gender ratio was seen across all research including both male and female participants.

Additionally, British Triathlon have seen a similar increase where 31.8% of their membership is represented by women. However, they have illustrated good progress in gender diversity by stating that 57% of those in the GO TRI programme are women.

Following the popularity of MPSEs, the market has become saturated with different types of events. From the traditional running, cycling and swimming events, to the non-traditional, where unique experiences have been utilised, for example, obstacle races and colour runs involving paint powder while completing a 5k run. Likewise, authors have started to consider the different athlete motivations for taking part in different events (Rundio et al., 2014; Rauter, 2014; Buning and Walker, 2016). Again, several motives were identified as important, with most studies making small distinctions between event motives. For example, Buning and Walker (2016) found that personal goal achievement and health orientation was linked more strongly with a traditional event (half marathon), whereas a non-traditional event (obstacle course) attracted motives of affiliation and self-esteem. However, the differences between the key motives were small.

Several studies posit that MPSE motivation research generally, and specifically focusing on participant differences, can be used by event organisers to target certain motives and run events that complement the core motives of the participants (Bennet, 2007; Buning and Walker, 2016; Coleman and Sebire, 2016). Subsequently, attracting more people to take part. That said, event management research is yet to explore this fully. However, as the above shows, several key motives are linked to engagement. Current literature has also only collected data at single events (e.g. Willem et al., 2017). Where more events were included the events were the same discipline (e.g. Coleman and Sebire, 2016; Funk et al. 2011). Additionally, where differences in motives were researched, two single events (non-traditional/ traditional) were used. What has yet to be considered is the motives of engagement in MPSE as a whole. Anecdotal evidence from Pembrokeshire shows that individuals take part in many different types of events through the MPSE season each year (duathlon, Tenfoot (Tenby to Saundersfoot sea swim), Carten (Cardiff to Tenby cycle ride), single or multiple LCW events, Ironman). Therefore, it is more appropriate to see the engagement in MPSEs collectively rather than in a particular event. This study first adds to the literature by exploring the motivation for engagement in MPSE collectively.

Authors have also highlighted the role of MPSEs for health benefits (Coleman and Sebire, 2016; Bowles et al., 2006; Crofts et al., 2012; Funk et al., 2011; Shipway and Holloway, 2010; Willem et al., 2017). MPSEs have been identified as a potential approach/strategy to encourage people to initiate and try and become more physically active (Bauman et al., 2009). Many research questions within the MPSE literature asked how participating in events would impact the amount of physical activity after the event, with some also concerned with attitudes and motivation of the athletes to continue leading physical active lifestyles (Funk et al., 2011; Willem, 2017). Although the research showed some drop-off of activity levels three months after the event, there was a significant increase in number of bike rides after events (Bowles et al., 2006); sufficient activity after the event for health benefits (Crofts et al., 2012) and stronger attitudes towards regular exercise for the participant groups categorised as novice or inactive (Funk et al., 2011). As noted, health and wellbeing benefits are also one of the key motives of engagement in MPSEs (Funk et al., 2011; Coleman and Sebire, 2016; Buning and Walker, 2016). These promising results begin to show the public health benefits of taking part in MPSE. However, limitations in the research designs have meant this cannot be fully confirmed. Time-points used to measure sustained physical activity behaviours were limited to a three-month period after the event (this may still be within the MPSE season, which can stretch from early March to late October) (Funk et al., 2011; Crofts et al., 2012). Moreover, Willem et al. (2017) noted that only a small percentage (3.1%) of participants were not regularly active. Similar findings were reported by Funk et al. (2011: 263) who found that participants in longer races such as half and full marathons “were most likely already exceeding the threshold for physical activity to receive health benefits before the event… and already possess strong attitudes towards exercise”. That said, authors still call for more research exploring the potential role of MPSEs in public health (Crofts et al., 2012; Willem et al., 2017; Bowles et al., 2006; Coleman and Sebire, 2016; Funk et al., 2011).

At present, these authors only focus on physical activity engagement as the connection between MPSEs and health. However, an alternative perspective of health and wellbeing, presented in more depth in the Literature Review (chapter three), provided the second contribution to literature of this study. Salutogenesis (Antonovsky, 1979), provides a more strengths-based view of health and wellbeing. This theory allows for

consideration of wider aspects of MPSE engagement rather than just the action of taking part. Antonovsky (1979) offers a more realistic understanding of health where a person sees their life as meaningful, finds understanding, and is able to manage and deal with stressors, with the help of resources around them.

Additionally, this perspective presents an important cultural reference point for the study. When considering the last two years, arguably the 'idea' of health and wellbeing has become extremely complex. Where the WHO (2021) focuses on advice to avoid the health risks of COVID-19, guidance from the British Government (Public Health England, 2021; NHS, 2021; Public Health Wales, 2021) provide more consideration of other stressors that may have severe health and wellbeing consequences. The guidance suggests many practical actions and social and environmental resources that will help individuals cope with stressors, such as loneliness, lack of routine, and boredom – reflecting a more salutogenic view of health.

Arguably, even when not facing an international pandemic these resources are vital to the feelings of manageability, meaningfulness, and comprehensibility of life. Therefore, considering the role of physical activity, specifically around MPSEs, in this holistic view of health and wellbeing provides a response to the limited understanding of public health in the current literature.

Subsequently, it was important to also consider the holistic nature of physical activity engagement. Although the concept of physical literacy has not been linked to MPSEs it has been continually used to explore physical activity engagement and has recently been connected to health (Whitehead, 2010; Whitehead, 2019; Cairney, 2019). Physical literacy considers the attributes of people and, in some cases, their environments that supports physical activity participation across the lifecourse (Whitehead, 2010; Sport Australia, 2021). The concept aligns with a strengths-based view of physical activity engagement and a more in-depth analysis of definitions and issues surrounding this concept are discussed in chapter 3.

Additionally, an underpinning perspective of ecology (Bronfenbrenner, 1979; McLeroy, 1988) provided the opportunity to consider the "big picture" (Longsbury and Mitchell, 2009: 213) of what it means to participate in MPSE physical activity. By exploring the systems around the participants, supportive and sometimes restrictive environments

and resources were located and explored. This perspective also helped consider the role of the wider community not just as support for engagement but also the relationship between the community and the events they host.

1.3 Aims, Objectives and Research Questions

The aims, objectives, and research questions were framed by this position in the relevant fields of literature. Additionally, further in-depth literature considerations in chapter three then led to the final aims, objectives, and research questions. For example, the language choices, “environments” and “resources” within the objectives and research questions are guided by ecological and salutogenic literature, illustrated in chapter three, the literature review:

Aim:

The aim of the study is to explore a saluto-ecological perspective of mass participation sport events in Pembrokeshire.

Objectives:

1. Investigate the growth of MPSE specifically in Pembrokeshire.

2. Classify demographic and motivational characteristics of those that take part in MPSEs.

3. Evidence individual experiences of MPSE phenomenon in Pembrokeshire.

4. Explore perceived health and wellbeing benefits for participants.

5. Identify multilevel environments and resources that have influenced continued physical activity in Pembrokeshire.

6. Explore how these environments and resources may interact for continued physical activity supporting physical literacy.

These objectives lead to the research questions:

1. What demographic characteristics and motivations inform the MPSE population in Pembrokeshire?

2. What role has the MPSE phenomenon had on health and wellbeing of participants in Pembrokeshire?

3. How do environments and resources in Pembrokeshire contribute to the continued engagement in physical activity and support physical literacy?

1.4 Researcher Journey

The journey to begin this PhD process was filled with lots of opportunities and experiences, both professionally and personally, that guided my decisions and actions in each aspect of the study. I have always had an interest in physical activity from a young age. My parents were very active and encouraged lots of different experiences, taking the role of 'parent-taxi' graciously for 14 years, from swimming lessons to galas, and hockey fixtures to national trials. Through school, my physical activity experiences were based mainly around sport and although I enjoyed each sport the most important element for me was the social aspect. Although I understood the health benefits of taking part, these never acted as a significant motive to participation. Even now, health benefits are secondary motives to taking part in physical activity after social and wellbeing reasons. When reading literature that provided that holistic perspective of health, it made sense that I felt a connection as it better explained my own experiences in comparison to what is read commonly in physical activity literature.

This idea was also represented in the university degree and career paths I chose in my 20s. As a Sports Therapist, I was fortunate to experience being part of elite sports teams. In an intense atmosphere, where the medical staff were responsible for the health and wellbeing of the players, I saw first-hand the importance of a holistic understanding of what constitutes health and wellbeing, from prevention, promotion, and recovery.

Moreover, it was always my intention to become a physical education teacher, not only to encourage physical active lifestyles in young people but also be a dependable adult in the lives of those that needed it. This interest led to taking a lead role in an alternative education provision for 14-16 year old pupils. This was the most challenging and rewarding experience of my career and demonstrated, yet again, the holistic approach needed to raise a child. This was not only evident in the official teaching and

learning within the curriculum but also what they needed for their wellbeing. Being a part of many teams around the child, I delt with parents, siblings, friends, community members, local authority provisions and societal aspects that proved to have hugely supportive benefits, but sometimes severely detrimental influence on a child as they grow. These experiences reaffirmed my beliefs that the person cannot be separated from the environments and experiences that surround them. This should be applied to health and wellbeing and more specifically choices that a person makes about physical activity engagement.

I was then presented with the opportunity to start the three year, fully funded scholarship through KESS2. The idea of exploring what was happening in a community around physical activity aligned well with my values around physical activity and had the potential for me to learn more about holistic health and wellbeing that was more about promotion rather than preventing risks. Experiences before starting the study also helped with skills that became vital in dealing with complexity in the thesis. These will be shared in the conclusion chapter as advice for further PhD students.

1.5 Thesis Structure

This chapter firstly presented the research problem of the study. Pembrokeshire has seen a unique phenomenon occurring around the MPSEs hosted in the area. Due to positioning the study firstly within MPSE and serious leisure, three contributions to literature were identified, firstly Welsh data in a growing field, secondly the potential health and wellbeing benefits of engagement, and thirdly exploring the role of wider environments to support the engagement.

The second chapter presents a review of literature that guides the study further and provides depth of understanding on key aspects of the research. The theory of ecology is used as a starting point to explore the role of surrounding environments in health behaviours. Salutogenesis is proposed as an alternative perspective of health and wellbeing that has the potential to offer a more realistic understanding of what it means to be healthy. Additionally, the concept of physical literacy is used to explore the complexity of physical activity engagement. The chapter also considers the

relationship between events and the host community through sport event tourism literature.

The methodology, guided by phenomenology and ethnography, is presented in the third chapter. Phases of the study are explained with a rationale for the methods chosen. Phase one describes the process of the document analysis to better understand the growth of MPSE, specifically in the area of Pembrokeshire. The more complex second phase describes the quantitative data collection process that occurred alongside ethnographic observations of events. Finally, the interview collection process is explained within phase three.

The fourth chapter of the thesis provides a creative nonfiction of two events. The content of this work was based on the real-life experiences I had while collecting ethnographic data through observations. All information in the chapter happened through the 2019 MPSE season. Although they are presented across two days, the experiences occurred through thirteen different events. A creative nonfiction is also used as a contemporary way to present parts of the data to this study.

The fifth chapter presents the results of the quantitative survey carried out by 419 participants. The results illustrate demographic characteristics as well as how and why the participants are motivated. Using statistical analysis, the chapter presents the key motives highlighted by the participants for taking part in MPSEs.

The qualitative findings and discussion are presented in chapter six. The chapter merges the key results from chapter five with the qualitative findings. The research questions are used to present the three key findings with accompanying discussion informed by the literature presented in chapter three.

The seventh and final chapter completes the thesis with conclusions and contribution to knowledge provided by the study. Additionally, recommendation and limitations are present to guide further research.

2. Literature Review

This chapter presents the literature review to both support the research questions set in the introduction chapter and to further explore the relevant literature and research to guide the direction of this study. The primary aim of the study is to consider the wider role of MPSE physical activity in public health. Firstly, the theory of ecology is used to position the study and consider not only aspects of the individual but also the role of their surrounding environments for health. Accordingly, health models and theories that have integrated ecological perspectives will be explored. Secondly, perspectives of health will be considered. The limitations of the dominant pathogenic perspective are explored and salutogenesis is presented as an alternative perspective to better consider greater attention to health promotion and connection to wellbeing over the more traditional pathogenic perspective. Therefore, the theory of saultogenesis integrated with ecology is used as the underpinning theory of this study. Thirdly, the place of physical activity within a salutogenic perspective is examined and consideration is given to the concept of physical literacy and its role to encourage and sustain engagement in physical activity. Fourthly, social and environmental aspects that encourage participation in physical activity are discussed. Specifically for Pembrokeshire, the access to many types of MPSE hosted in the area per year is explored as an example of this. Accordingly, the final section of this chapter considers the role of events in the community and the potentially relationship between them and the residents of the host community.

2.1 Ecological perspective and related models of health

> "An ecological perspective encompasses context in the broadest sense of the word, to include physical, social, cultural, and historical aspects of context … as well as attributes and behaviours of persons within" (McLaren and Hawe, 2005: 6).

Historically, the word 'ecology' was based in biological science (Odum and Barrett, 2004). Linked to scientists as early as Ernst Haekel in 1866 who said ecology was concerned with the relationship between the organism and its environment, the concept has been defined and contested for decades (Friedrich, 1958; Odum and

Barret, 2004). Unsatisfied with other definitions, Friedrich (1958: 154) contributed his own which he believed better considered the “complexes within a greater complex”. Friedrich (1958: 154) defined ecology as “the science of the living beings as members of the whole of nature”. Similarly, Odum (1959: 4) also includes the idea of holism in his definition as “the study of the structure and function of nature”. These ideas although starting in biological sciences have developed and advanced into many fields of literature including human science (Wilson, 2004). Moreover, Wilson (2004:xiii) states “the pursuit of public health is largely an application of ecology”. Therefore, it is pertinent to this study to consider the theory of human ecology further, specifically the psychological understanding of individual and group behaviours around physical activity.

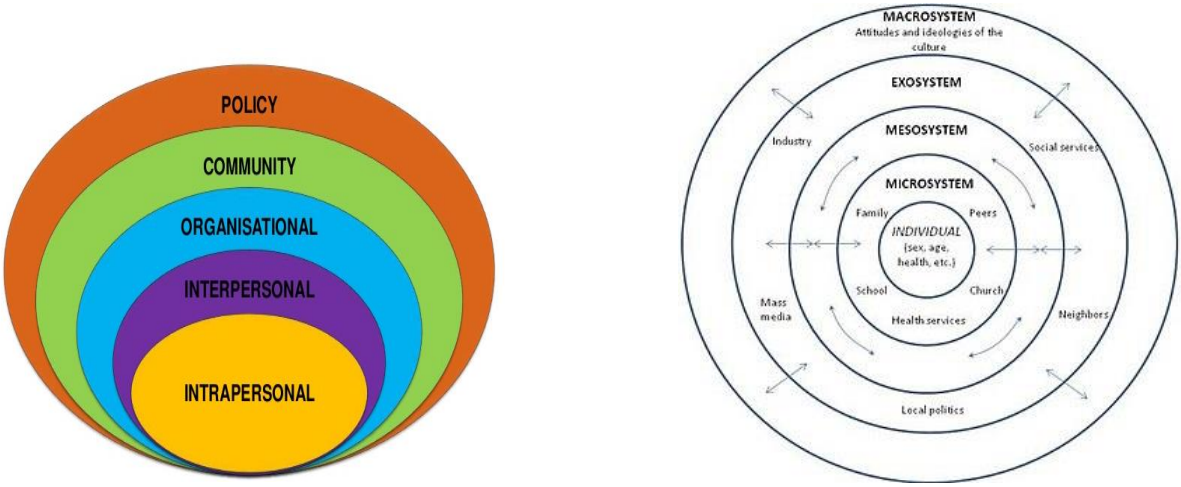
Since the work of Lewin (1936) the field of psychological ecology has grown extensively. Lewin believed that the first step to understanding a person’s behaviour is to understand the opportunities and constraints within their environment, especially the person’s perceptions of them (Lewin, 1944 cited in Barker and Wright, 1949; McLaren and Wright, 2005). Lewin (1936) explains it as an equation: B=f(P|E) (behaviour is a function of person and environment). Influenced by Lewin’s work, his students continued to expand the use and study of psychological ecology (Barker, 1968) and into many other areas of research such as human development (Bronfenbrenner, 1979). Thereafter, key work in social ecology (Stokols, 1992 & 1996; Bookchin, 1996) and ecological community psychology (Kelly, 2006) were influential in adding to the literature. These early efforts have inspired the use of ecological approaches in health behaviour, health promotion and public health (McLeroy *et al.*, 1988; Simons-Morton *et al.*, 1989; Flay and Petraitis, 1994; Cohen *et al.*, 2000).

The differences between approaches can be classified, firstly by their precise description of variety of environmental influences (Richards et al., 2011). For example, McLeroy et al (1988, see Figure 2.1) describes the environments generally using the five key areas from much of ecology literature. Whereas work by Cohen et al. (2000) and Sallis et al. (2006) propose more specific models. Sallis et al. (2006) present a model of four domains of active living. Although similarities can be seen between this and more general models, Sallis et al. (2006) include specific aspects to allow for greater understanding and explanation of their specific ecological ‘domains of active

living' model. Secondly, whether general or specific, differences may lie in the focus and expertise within certain disciplines, there can be a dominance or more focus given to one environment over another. For example, uses of ecology within environmental psychology would primarily be concerned with the relationship between individuals and their physical environment. Likewise, many other subthemes in the field of ecology will also have different foci (McLaren and Howe, 2005; Sallis et al., 2008; Richards et al., 2011). Thirdly, there are two distinct interpretations of levels or environments. For example, in Bronfenbrenner's (1979) ecological framework (Figure 2.1) the outer level called the 'macrosystem' refers to the patterns of the entire network and is inclusive of all interconnected systems inside it (micro, meso and exosystems). This also aligns with Odum's (1959) definition of ecology from its early uses in biological science. These labels are also used in other fields of literature when discussing the different levels and environments even though they are not within ecological literature explicitly, for example serious leisure (Stebbins, 2017; 2020). Whereas McLeroy's (1988) approach (Figure 2.1), although still recognises the interactive nature of the levels, are labelled as five sources of influence with different factor focuses (intrapersonal factors; interpersonal processes; organisational or institutional factors; community factors and public policy).

Figure 2.1

Examples of Ecological Models



Note. Left: McLeroy (1988) ecological model. Right: Bronfenbrenner (1979) ecological model.

The use of ecological perspective in different areas of literature mean there have been, and will continue to be, slight nuances within the approaches. The focus and expertise within disciplines and areas of literature will inevitably lead to differences. However, there are several similarities that are present through all. Firstly, all approaches stay true to Lewin's (1936) equation. Secondly, there are multiple levels in the larger social systems within which the individual is embedded (Lounsbury and Mitchell, 2009; Sallis *et al.*, 2008; Richard *et al.*, 2011). Although these 'levels', ''dimensions' or 'environments' within ecological models have been labelled differently, each represent a similar collection of relating factors. Thirdly, these levels or environments are interdependent, interactive and reinforcing (McLeroy et al., 1988; Sallis et al., 2008; McLaren and Hawe, 2005; Stokols, 1992; Golden and Earp, 2012). Finally, the visual representations of the models also demonstrate the interactions between environments and the direct or indirect influence of environments on behaviour depending on the distance depicted from the individual. Those layers/ environments closest more directly influencing individuals' behaviour.

Since these seminal contributions extensive reviews have been conducted (Green et al., 1996; McLaren and Hawe, 2005; Sallis et al., 2008). While McLaren and Hawe (2005) provide a helpful glossary of terms and perspectives that pertain to an ecological approach in health research, Sallis et al. (2008) reviews the range of uses and applications for ecological approaches. The adaptability and robustness of the models are evident as some are used to guide interventions, while others are related to understanding influences on behaviour. Further, Richard et al. (2011) explores the uses of ecological models in health promotion over two decades. The authors discuss the importance of the evolution and coverage of an ecological approach by illustrating contemporary ecological models, namely, Stokols (2003); Best et al. (2003); Hovell et al. (2009); and Burke et al. (2009). When analysing these models Richard et al. (2011) demonstrate how they align closely to "the four constitutive components of an ecological approach" outlined by Kingry-Westergaard and Kelly (1990) and Kelly (2006). Kingry-Westergaard and Kelly (1990) and Kelly (2006) explains them as facets of the ecological approach from the perspective of a contextualist epistemology. Firstly, the authors list ten *theoretical propositions* characterising the interrelationships of persons and settings. Secondly, the nature of an ecological approach demonstrates

the importance of *the social construction of ecological knowledge*. Accordingly, the third facet highlights the importance of *the collaborative style* where the researcher takes a role within the context and the "relationship between the observer and the observed (participant) as the source of the construction of meaning about the phenomena to be studied" (Kelly, 2006: 174). The fourth facet demonstrates the importance of understanding the social processes within the context or phenomenon being explored. Clearly these facets allow for the use of an ecological approach to underpin research and explore the "big picture" (Lounsbury and Mitchell, 2009: 213) of MPSEs in the community of Pembrokeshire. Therefore, the facets will be explored further in methodology chapter to guide the research design and process.

More specifically for this study, ecological perspectives have evolved in approaches of health improvement and promotion. Models such as biomedical and biopsychosocial have been used to better understand health, from promotion and health behaviours to public health and access to healthcare (Stokols, 2018). The biomedical model of health and disease, focused on the biological processes, and defined health as the absence of pain and disease. Historically this model demonstrated that certain microbes caused distinct physical symptoms and was focused on risk and disease prevention. Over time the biomedical model was criticised, and biological and physiological causes of diseases were incorporated into new models that valued monism and holistic considerations as oppose to mind-body dualism (Stokols, 2018) and the social dimension of illness (Engel, 1977; Fava and Sonino, 2017). In the biopsychosocial model of health, Engel (1977) argued for a holistic approach that considered biological, psychological and social as three equal elements of health. This model was very influential in the growth of health psychology (Lyons and Chamberlain, 2017). Although a welcome change from the biomedical framework across a range of social sciences, health psychology, and the biopsychosocial model specifically, was dominated by positivist approaches and adhered to the 'scientific' nature of mainstream psychology (Chamberlain and Murray, 2009; Hodgetts and Stolte, 2017; Suls and Rothman, 2004). Criticism of the biopsychosocial model demonstrates the disproportionate focus on the individuals' responsibility and only adds variables to an individualistic perspective of health, failing to achieve a fully holistic approach (Gordon, 1988; Lyons and Chamberlain, 2017). Marks (2002) outlined the

developments within health psychology and the nuanced approaches adopted, namely, clinical, public, community and critical. Although clinical health psychology remains the dominant approach with its research grounded in positivism, the other three share a much broader perspective, including many influences such as social, cultural, political, and economic (Marks, 2002; Lyons and Chamberlain, 2017). To gain a social orientated approach emphasis was placed on 'health behaviour' models. Derived out of social cognitive theories, models such as Health Belief Model (Rosenstock, 1974) and Theory of Planned Behaviour (Ajzen, 1985; Conner and Norman, 2005) were used to highlight "attitudes, beliefs and cognitions as predictors of health-related behaviours" (Lyons and Chamberlain, 2017: 537). Criticism of this approach showed their limits to adequately appreciate the complexity of behaviours (Ogden, 2003); simplify and decontextualize behaviours (Mielewczyk and Willig, 2007); and not consider wider macro-societal influences including the physical environment (Stokols, 2018; Sallis, 2008: 466). This is where ecological approach plays a vital role in health promotion. For example, Stokols (1992: 14) demonstrated five health-related functions of our surroundings. The author highlighted the physical and social environments as a *medium of disease transmission*; *a negative stressor* on health and wellbeing; *source of safety or danger; enabler for health behaviours*; and serve as a *provider of health resources* (Stokols, 1992). The latter two listed here are especially key for this study and are considered further below. While these models are helpful, the perspective of health that is employed also plays a vital role in understanding the health benefits of physical activity.

2.2 Issues with the dominant perspective of health

As this study is primarily concerned with physical activity it is pertinent to consider the dominant perspective of health presented in physical activity literature. Interest in the public health role of physical activity has grown considerably in the last few decades. Physical activity (PA) has been heavily connected to the amelioration of non-communicable diseases such as heart disease, cancer, dementia and diabetes (Lee et al., 2012; Reiner et al., 2013; NHS choices, 2015; WHO, 2018; WHO, 2020; Ding et al., 2020). Moreover, the levels of physical inactivity have been referred to as a "pandemic" and targeted as an increasingly serious public health problem (Kohl et al.,

2012; Das and Horton, 2012; Anderson et al., 2016; Pratt et al., 2019). Based on extensive reviews, recommendations of at least 150 to 300 minutes of moderate-intensity aerobic physical activity or 75 to 150 minutes of vigorous-intensity aerobic PA are recommended for adults weekly to gain health benefits (WHO, 2020; Ding et al., 2020). Importantly, the new recommendations also state "some physical activity is better than none" (WHO, 2020: 5), this addition of "doing any amount of physical activity… aims to empower inactive individuals to reap benefits of physical activity, even when recommended target range is perceived to be out of reach" (Ding et al., 2020: 2). Within this discourse physical activity has been labelled as treatment for these noncommunicable diseases and discussed in medical terms as a means to reduce health-risk (Geild et al., 2020; Pedersen et al., 2015; Musich et al., 2016; WHO, 2020; McNally et al., 2015). This is evident, even more so, with the new addition of the small "dose" of physical activity being good enough for health benefits. Although important work, the dominance of the epidemiological perspective reduces health to health risks.

As presented in the MPSE literature (introduction chapter), this perspective of 'health-as-health-risks' is reflected in the research focused on participation in MPSE and its link to public health benefits (Coleman and Sebire, 2016; Bowles et al., 2006; Crofts et al., 2012; Funk et al., 2011; Shipway and Holloway, 2010; Willem et al., 2017). This work has continued the narrow perspective of health by focusing on physical activity levels of participants. Many research questions within the MPSE literature asked how participating in events would impact the amount of physical activity after the event, with some also concerned with attitude and motivation of the athletes to continue leading physical active lifestyles.

Arguably, this limited perspective of health is reflected in the widely used World Health Organisation (WHO, 1946) definition of health as "a state of complete physical, mental and social wellbeing and not merely the absence of disease or infirmity". Although this definition highlights the importance of wider wellbeing than just the physical, the phrase "a complete state" is problematic (Hodgetts et al., 2020 ; Antonovsky, 1979). The idea of "complete" health suggests a dichotomous classification of health, either well or unwell or disease versus health. As Hodgetts et al. (2020: 212) states individuals "diagnosed with various diseases and disabilities can still rightly describe themselves as being healthy". Therefore, it is better to see health

as a social phenomenon that considers features and conditions of a person and their environment from the physical, psychological, and relational to environmental and economic (Hodgetts et al., 2020; Campbell and Cornish, 2014; Fine, 2013).

Additionally, focusing on health risks has led authors to question the legitimate connection between health and the concept of wellbeing. Naci and Ioannidis (2015) raise a concern that although the term *health and wellbeing* is used continuously through research and policy, there is a disconnect between the two concepts. The authors suggest wellbeing ("wellness" as the authors refer to it) goes beyond the traditional definition of health.

Therefore, a different perspective of health, Salutogenesis, is presented below that positions health as a continuous journey through life towards health rather than a complete state. Moreover, Salutogenesis presents a more holistic understanding of health. This not only allows for a wider view on what contributes to health, but also, provides a more suitable explanation of health that connects with wellbeing. These are presented in the next section.

2.3 Salutogenesis

Antonovsky (1979; 1987; 1996) provides an alternative perspective aimed to change the health question from "what causes disease?", to "what causes health?". He uses the term Salutogenesis to consider the beginnings or origins (*genesis*) of health (*salus*), in comparison to pathogenesis – the origins (*genesis*) of suffering or disease (*patho*). This shift posits that no-one is ever totally healthy (Antonovsky, 1979). Rather, health is seen as a continuous journey where the person is thriving in, coping with, or struggling against life situations. Antonovsky (1979) suggests that instead of seeing health and illness as one or the other, people are moving along a continuum stretching from 'health dis-ease' to 'health ease'. Depending on amount of ease a person feels in their everyday lives will determine the movement along the continuum (Antonovsky, 1987: 3). To illustrate this, Antonovsky (1996: 14) uses the image of a swimmer and a river. From a pathogenic perspective the swimmer is either in the river (unwell) or on the bank (well). The use of curative and preventative strategies would rescue the swimmer down-stream close to 'health dis-ease' and place them back on the bank.

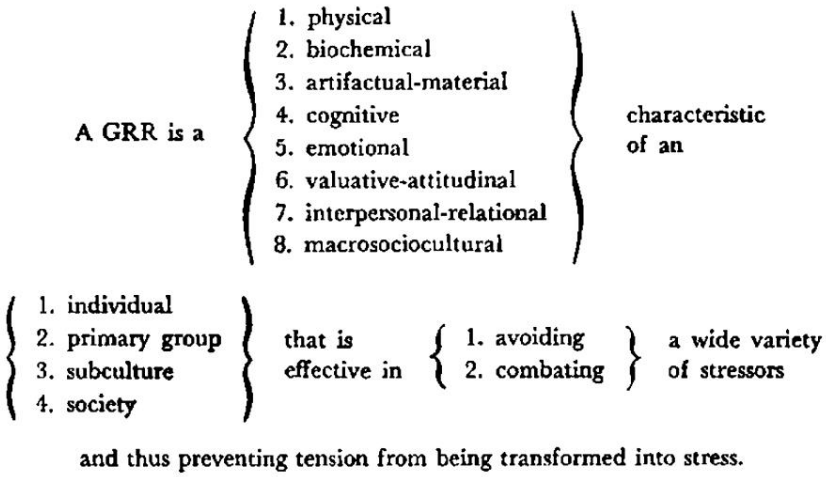
Whereas, from a salutogenic perspective the swimmer is "always in the dangerous river of life", and the important questions are "How dangerous is *our* river? How well can we swim?" (Antonovsky, 1996: 14). More than just surviving the river, Salutogenesis (similarly, health promotion) is about "thriving and enabling people to increase control over their health" (Bauer et al., 2020). In presenting this perspective, Antonovsky (1979) does not intend to reject pathogenesis, but the dichotomous view of health, moving the focus from preventing risks to developing resources for health.

Through his work, especially his book *'Health, stress and coping'*, Antonovsky (1979) presents several concepts that help us understand this strengths-based approach to health (Antonovsky, 1972; 1979; 1987; 1996). According to Salutogenesis every individual is in a state of heterostasis (Antonovsky, 1987: 130), through everyday life each person will face stressors requiring a response from the individual. This response (named 'tension' by the author) may be positive or negative and could lead to coping or stress (failure to cope) (Antonovsky, 1979: 93-94). General Resistant Resources (GRRs) are used in the process of tension management.

Antonovsky's early work provides the origin of what would later become the concept of GRRs, commenting "the impact of a given external situation upon a person is mediated by the psychological, social and cultural resources at his disposal" (Antonovsky and Kats, 1967: 16). Antonovsky (1979: 103) later provided a mapping sentence definition of GRRs (Figure 2.2).

Figure 2.2

Mapping sentence definition of GGRs



Importantly, these GRRs provide life experiences for each individual helping them find meaning in their world (Antonovsky, 1996). Thus, these resources work towards strengthening the core concept of Salutogenesis – the Sense of Coherence (SOC). Antonovsky (1987: 19) defines SOC as:

> "a global orientation that expresses the extent to which one has a pervasive, enduring though dynamic feeling of confidence that (1) the stimuli deriving from one's internal and external environments in the course of living are structured, predictable, and explicable; (2) the resources are available to one to meet the demands posed by these stimuli; and (3) these demands are challenges, worthy of investment and engagement".

Put simply, Sense of Coherence (SOC) is where a person perceives their life as being comprehensible, manageable and meaningful (Antonovsky, 1987; Mittelmark and Bauer, 2017). A strong SOC allows a person to thrive in the ease – dis-ease health continuum. As the model of Salutogenesis suggests, sense of coherence develops from infancy and is shaped by its sociocultural experiences (Antonovsky, 1979; Mittelmark and Bauer, 2017). Additionally, Antonovsky (1979; 1996) discussed the role of culture in Salutogenesis extensively, however Mittelmark and Bauer (2017: 8) call for research into cultural contexts, understood as "a cauldron generating psychosocial stressors and resistance resources". This study explores the salutogenic health connections within the culture of MPSEs in Pembrokeshire. In doing so, the study intends to use two applications of the theory discussed by Bauer et al. (2019: 2), firstly focusing on "resources leading to positive outcomes rather than focusing on disease and underlying risk factors" and secondly how these resources are mobilized by sense of coherence shaped by life experiences.

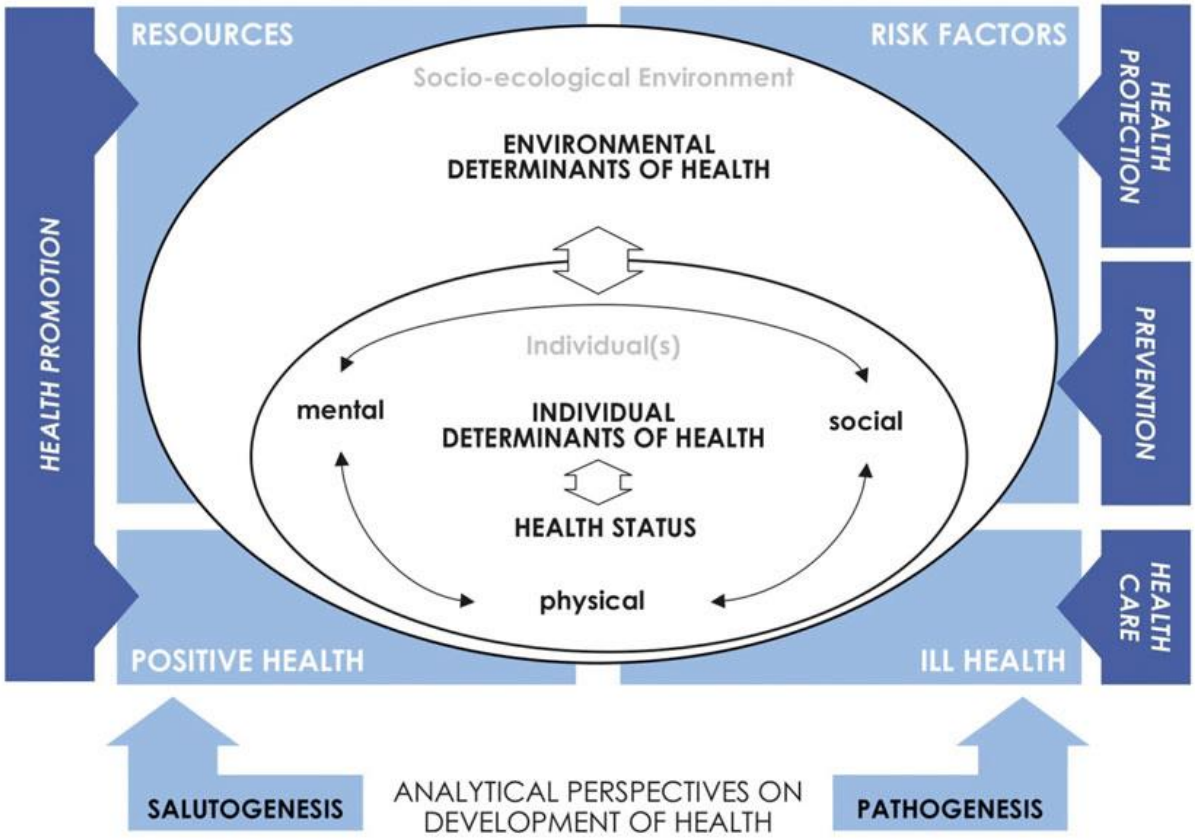
Notably, Mittelmark and Bauer (2017) go on to demonstrate the neglect of the theory of Salutogenesis in current research and literature, arguing that the newness of the model is a reason for this issue. Salutogenesis has also been critiqued for not being empirically tested enough (Bengel et al., 2001; Mittelmark and Bauer, 2017) and Saboga-Nunes et al. (2020) suggests that using salutogenesis as the predominant empirical tool may lead to a lack of sufficient research robustness. However, the salutogenic perspective has several similarities to other health and wellbeing concepts, and in places can be seen clearly in policy without reference. For example, the WHO

(1999: 28) used sense of coherence as a suggested strategy towards the health of young people. The WHO (1999: 28) state “health is created if people are confident that life is manageable and meaningful, and if they have adequate resources (mental, physical, emotional, social and material) to meet whatever demands are placed on them.”

More recently, authors concerned with health promotion have used salutogenesis as an underpinning theory for their models. Firstly, the European Health Promotion Indicator Development’s (EHPID) health development model, Bauer and colleagues (2006) used the model (Figure 2.3) to demonstrate how the salutogenic (health promotion) and pathogenic (disease prevention) perspectives complement each other.

Figure 2.3

EUHPID Health Development Model



Previous health indicator research (Kramers, 2003) was dominated by risk factors and health indicators targeting disease prevention. The health development model (Brauer et al., 2006) demonstrated that actions of society orientated towards health

promotion, and therefore health resources (left side of Fig. 3.3), and work devoted to prevention and protection (pathogentic) could operate side by side with the common aim being the holistic health of the individual and the context of her environments. Morgan and Ziglio (2007) also used salutogenesis within their Assets Model of Public Health. Additionally, as an extension from Antonovsky's work the authors here present positively orientated questions away from *how to prevent risk factors to disease*, to *what are key assets to health*. Specifically focused on what salutogenesis refers to as resources.

2.3.1 Salutogenesis connection to Wellbeing

Salutogenesis also provides a suitable solution to issue of connection between health and wellbeing mentioned above. Arguably, salutogenesis provides a more fitting understanding of health that would strengthen the bond between both. Indeed, due to the positive orientation of the theory authors have already presented connections between salutogenesis and common wellbeing terminology such as resilience, self-esteem or coping (Antonovsky, 1987; Johnson, 2004; Harrop et al., 2007; Langeland et al., 2007). Moreover, explicit connections have been made in explanations of salutogenesis. For example, when discussing the theory, Morgan and Ziglio (2007: 19) present salutogenic questions as "*what external factors contribute to health and development"; "What factors make us more resilient (more able to cope in times of stress)"; "What opens us to more fully experience life";* and *"what produces overall levels of well being?".*

Considering wellbeing and its widely accepted association with health, the concept has its origins in two approaches. Firstly, the hedonistic tradition which highlights happiness, life satisfaction and positive affect (or low negative affect) (Diener, 1984; Kahneman et al., 1999). Secondly, the eudonomic approach considers the positive functioning and human development (Waterman, 1993). Wellbeing is understood as a multi-dimensional concept (Diener, 2009; Dodge et al., 2012). Due to different perspectives and opinions on what constitutes or defines wellbeing the contested concept has been scrutinised as being complex and at times contradictory (Diener, 2009; Pollard and Lee, 2003; Morrow and Mayall, 2009; Dodge et al., 2012). That said, there are several commonalities across understandings including its positive orientation. For example, Seligman (Wallis, 2005), when discussing his presidential

address for American Psychological Association in 1998 stated, “I realised my profession was half-baked. It wasn’t enough for us to nullify disabling conditions and get to zero. We needed to ask, What are the enabling conditions that make human beings flourish? How do we get from zero to plus five?”. Additionally, the holistic understanding of wellbeing is widely accepted. For example, Dodge et al. (2012) offer an explanation of wellbeing that considers the resources that support wellbeing. Similarly, Seligman (2011) present five elements or building blocks of wellbeing (Positive emotion, Engagement, relationships, meaning and accomplishment).

It is out of the scope of this study to discuss the complexity of the term but rather to highlight the key similarities between salutogenic perspective of health and the concept of wellbeing. Firstly, positive orientation, as already discussed salutogenesis is concerned with keeping people at the health-ease side of the breakdown continuum (Antonovsky, 1979) and focuses on resources that support thriving. This positive orientation reflects the hedonic and eudaimonic traditions underpinning the concept of wellbeing (Ryan and Deci, 2001). These philosophies present two views of wellbeing in the field of psychology (Deci and Ryan, 2008). The hedonic approach is concerned with happiness and enjoyment, focused on life satisfaction and high positive and low negative affect. Authors who subscribe to the hedonic tradition engage with what causes life experiences to be pleasant or unpleasant (Diener, 1984; Kahneman, Diener and Schwarz, 1999). On the other hand, the eudaimonic perspective sees wellbeing as the realisation of human potential (Rogers, 1961; Ryff, 1989) to lead purposeful and fulfilling lives (Ryan and Deci, 2001). Connections here can also be made to the ‘meaningful’ element of sense of coherence, Aristotle presents eudemonic wellbeing as the ways we are able to flourish, find meaning and fulfil our potential (Aristotle/ Kenny, 2011). If hedonic wellbeing refers to the happiness of the individual, eudaimonic places the individual within their environments connecting them to their contexts both social and physical (Deci and Ryan, 2008; Ruini and Ryff, 2016) and consequently the resources available to maintain and strengthen sense of coherence and wellbeing.

Secondly, throughout his writing Antonovsky (1979; 1987; 1996) discusses the state of precarious balance where individuals must employ resources to deal with stressors they face and manage chaos they experience in their day to day lives. In recent

writings on wellbeing, several authors have presented wellbeing as an "equilibrium" between challenges and characteristics, both internal (psychological) and external (context and environmental) that can be relied upon to cope and flourish (Dodge et al., 2012; Hendry and Kloep, 2002; Headey and Wearing, 1991; Herzlich, 1973). This is also reflected in Csikszentmihalyi's (1975; 1997; 2014) sense of flow, where challenges and skills are relatively balanced to achieve a state of flow. If imbalanced, boredom, control, apathy or anxiety will be experienced (Csikszentmihalyi, 1997). The same has been demonstrated with the sense of coherence at the heart of salutogenesis. Without the confidence, knowledge and understanding of how to use the available resources the individual will lack the comprehensibility dimension of SOC. The lack of manageability would occur if individuals perceived or experience an absence of resources. Additionally, without building positive life experiences their life will not feel meaningful (Saboga-Nunes et al., 2019).

Thirdly, resources within the salutogenic model of health are reflected across several explanations of wellbeing. Within the "new definition of wellbeing" provided by Dodge et al. (2012: 230) resources are used to combat and negotiate challenges individuals may face. These resources are categorised as psychological, social and physical. The same is seen across several wellbeing frameworks, with different categories or labels. For example, Headey and Wearing (1991) refer to 'stocks' when considering conditions or characteristics of an individual's environment and context. Similarly, McNaught (2011) refers to 'forces' specific to society, community, family and individual domains of wellbeing. Additionally, other explanations that have described wellbeing by elements and dimensions also make the connection to resources that may impact (Ryff, 1989; Ryff and Singer, 2008; Seligman, 2011; WHO, 1997). In positive psychology, Seligman (2011: 2) calls for "enabling conditions of life" to enhance wellbeing. Also, WHO (1997: 1) list aspects that impact quality of life, including a person's "physical health, psychological state, personal beliefs, social relationships and their relationship to salient features of their environment".

Moving forward, terms are used that are inclusive of a salutogenic perspective as well as the concept of wellbeing, 'resources' or 'health resources' are used to cover GRRs from a salutogenic perspective and resources, forces, and stocks from a wellbeing perspective. When referring to health and wellbeing it is inclusive of sense of

coherence. Drawing on a salutogenic perspective that is supported by dimensions of wellbeing, this study uses a strengths-based approach to highlight the holistic nature of health and wellbeing. Specifically, how participating in physical activity, in this case MPSEs, not only provides a health resource for physical health and health risk, but also provides wider resources within the culture of participation to support health and wellbeing. It is this perspective that also connects more completely to recent approaches that socially frame health promotion, or health behaviours (WHO, 1986; WHO, 2018). This perspective will also provide the missing holistic view of public health that is currently lacking from MPSE physical activity literature which focus mainly on individual behaviour change.

Therefore, it is vital that we look closer at the nature of resources and how they support health and wellbeing. The following section will also provide evidence from literature where previous authors have demonstrated the presence of resources in physical activity settings, and where possible MPSEs literature. For continuity and to integrate ecological perspective this study will use Dodge et al.'s (2012) labels – psychological, social, and physical.

2.3.2 Psychological Resources

According to Hendry and Kloep (2002) self-efficacy and self-esteem would fall under the category of psychological resources. Similarly, when considering previous literature looking at GRRs within the salutogenic model for health, Iden, Eriksson, and Al-Yagon (2017) identify positive/negative affect, low anxiety and meaning as well as the above. Interestingly, psychological resources have also, at times, been classed as dimensions or aspects of wellbeing. For example, in positive psychology literature Seligman (2011) suggests that positive emotions, engagement, relationships, meaning and accomplishment are the building blocks for a flourishing life. Furthermore, Ryff (1989, p. 1080) highlights autonomy; purpose in life; realisation of potential and self-acceptance as "ideals of wellbeing" and, the presence of positive psychology domains has been explored in experiences at charity sport events (Filo and Coghlan, 2016). These elements have also been used to measure wellbeing (Butler and Kern, 2016; Kern et al., 2016).

Clearly, whether they are classed as resources or dimensions of wellbeing, positive emotions, mood, self-efficacy, and self-esteem as well as positive affect will help deal

with challenges experienced throughout life. Therefore, for this study they are classed as health and wellbeing resources.

Interestingly, when researching psychological resources within physical activity literature, the highly cited articles were heavily focused on what physical activity can do for depression and anxiety (De Moor and de Geus, 2018; Grassman, Mammen and Faulkner, 2018; Batholomew, 2005; Cooney et al., 2013). This reaffirms the pathogenic approach to physical activity research. For example, Paluska and Schwenk (2000) discuss physical activity as 'treatment' for depression, anxiety and panic disorders. The authors present questions for further research focused on frequency and intensity of activity, speaking to the reduction of physical activity to 'dose'. Likewise, a recent article provides physical activity guidelines for mental health benefits questioning the "optimal dose" but demonstrating that "the physical activity-mental health relationship is apparent event at low doses" (Teychenne et al., 2020: 4; Teychenne et al., 2008). While Kim et al. (2019: 90) present a suggestion of "optimal amount of physical activity for reducing the onset of depressive symptoms". Reviews have also been carried out on the relationship between physical activity and depression or anxiety in children (Dale et al., 2019) and non-clinical adult populations (Rebar et al., 2015), both reviews discussed low criticality of methods reviewed.

However, there has been a small amount of literature discussing the connection between physical activity and positive affect, self-esteem and life-satisfaction (Cameron et al., 2017; Martin et al., 2014; Kim et al., 2014; Rhodes et al., 2009; Joseph et al., 2014; Blacklock et al., 2007). Interestingly, the direction of research focused on the influence of psychological resources for physical activity engagement more than physical activity providing the psychological resources. For example, Cameron et al. (2017) found positive affect led to improved physical activity levels and greater enthusiasm to try different activities. This has also been seen in the *upward spiral theory of lifestyle change* (Fredrickson, 2013; Van Capellen et al., 2017). The *broaden-and-build theory of positive emotions* (Fredrickson, 1998; 2001; Fredrickson and Joiner, 2018) posits that regular experiences of positive emotions broadens people's awareness and personal resources that contribute to their health and wellbeing. According to the upward spiral theory, these emotions would trigger "wanting and seeking" behaviours that further embed habitual positive health behaviours, in this

case physical activity and exercise. Importantly for this study, the second research question ('What role has the MPSE phenomenon has on the health and wellbeing of participants in Pembrokeshire?') adds to the health and wellbeing literature by exploring the relationship between physical activity and psychological resources further.

2.3.3 Social Resources

Drawing on the understanding of Hendry and Kloep (2002) the authors include trust, attachment, size of network and quality of network in their social resources pool. Within the salutogenic model for health many aspects of social resources are discussed. Specifically, Iden et al. (2017) list patterns of attachment through the lifespan with significant others namely parental and family factors. Additionally, they list social settings such as school and the community as potential resource structures. Similar resources, specifically relationships, have been noted in other explanations, descriptions and definitions of wellbeing (McNaught, 2011; Seligman, 2011; Roffey, 2011). For example, Seligman (2011) name relationships as one of the key elements in his model of wellbeing, labelled by the acronym of PERMA. Additionally, Roffey (2011) demonstrates that individual wellbeing is indivisible from wellbeing of the wider communities due to the importance of meaningful positive relationships (McCarthy and Vickers, 2012; Prilleltensky and Prilleltensky, 2007).

MPSEs have been linked to sense of community or social cohesion as a resource listed by McNaught (2011). For instance, one of the three core markers of community described by Muniz and O'Guinn (2001) is consciousness of kind – this is where members of a community feel an intrinsic connection to each other. Literature has shown that accessing a social environment of likeminded people was a key experience of participants (Shipway *et al.*, 2013). Likewise, through a social atmosphere and interaction Robinson et al. (2014) found runners in a club formed a sense of belonging and shared culture. Within the study some of these connections were also seen to develop into friendships. Indeed, Wiltshire and Stevinson (2018) also found that casual social connections fostered an inclusive and welcoming community in *parkrun* events. The connections made also serves as social identity that play a vital role in the health and wellbeing of the individual as well as other members within the group (Jetten, 2017).

Again, in answering the second research question the relationship between social resources and physical activity is considered. Moreover, it would be remiss, not to also explore the nature of the communities in Pembrokeshire. As a rural community, there is potential and opportunities to provide community assets (Marmot, 2010) for health and wellbeing. Additionally, as Kevany et al. (2017) suggest several assets may be unique to rural communities.

2.3.4 Physical Resources

This is a broad term that can include many different types of resources, for example finance and material resources are listed by Hendry and Kloep (2002), Kloep et al. (2009), and Iden et al. (2017). In other descriptions of wellbeing, Herzlich (1973, p. 60) calls for "plenty of physical resources" and McNaught (2011) names physical security; geographical integrity; housing and the environment in his framework for defining wellbeing.

As the majority of MPSEs take place in the outdoors the study considered the role of outdoor space in Pembrokeshire as a physical resource for health and wellbeing. Pembrokeshire is the UK's coastal National Park consisting of hundreds of beaches, as well as considerable countryside, and moorland. Therefore, the role of nature is also drawn upon as an essential element of the physical environment. James et al. (2016) and others (Bratman et al., 2019; Hartig et al., 2014) demonstrate that connection to nature can improve physical and mental health such as having a positive effect on stress depression and anxiety. Additionally, literature has demonstrated that richness of biodiversity in the immediate environment has a direct link with psychological health benefits (Fuller et al., 2007). Interaction with nature can invoke immediate positive affect and lower negative affect (Honold et al., 2016; McMahan and Estes, 2015). Similarly, several researchers have used the concept of place attachment or access to suitable green spaces to better understand the relationship between human wellbeing and nature (Basu et al., 2020; Cleary et al., 2017; Kyle et al., 2004; Lewicka, 2011; Wood et al., 2017).

Literature has also demonstrated that access to local green spaces has a positive correlation with achieving the recommended physical activity guidelines (Flowers et al., 2016). This shows promise of the physical health benefits mentioned above. For example, Fraser (2021) demonstrates how this can be beneficial to help prevention

and management of health conditions (specifically Type 2 Diabetes). Similarly, there is a growing body of literature that shows exercise outdoors in nature (known as 'green exercise') is more enjoyable than indoor exercise environments leading to greater adherence to regular physical activity for health benefits (Lacharite-Lemieux, Brunelle and Dionne, 2015; Lahart et al., 2019). Furthermore, many authors have researched the relationship between green exercise and wellbeing (Pretty et al., 2007). Much of the research carried out compares green exercise with either indoor exercise or outdoor exercise in built environment. For example, green exercise significantly improves mental health, self-esteem and mood (Brown et al., 2014) as well as reduce negative emotions, tension and depression in comparison to outdoor activities taking place in urban or built environments (Bowler et al., 2010; Barton et al., 2009; Rogerson et al., 2015). Additionally, in comparison to activities that take place indoors the same activities (walking or running) as green exercise can influence positive mood states and improvements in self-esteem as well as decrease anxiety, depression, fatigue and negative emotions (such as anger and hostility and sadness) (Focht, 2009; Thompson Coon *et al.*, 2011; Shanahan *et al.,* 2016).

Barton and Pretty (2010; and Barton et al., 2016) go as far as to suggest an optimal dose of nature to gain these benefits. Barton and Pretty (2010) suggest only five minutes of green exercise would substantially change self-esteem and mood, with improvements continuing after this. However, this reflects the pathogenic view of resources. Arguably, this is helpful when considering encouraging nature engagement from an epidemiological perspective. Nevertheless, Geddes and Passmore (2021) show a more salutogenic perspective encouraging a reframing of our view of nature 'as instrumental' to 'interpersonal relationship' between humans and nature. Therefore, this study also looks not just at the *use* of resources but the engagement or relationship with them.

It would be remiss not to mention here the demonstration of the vital role of green exercise through the COVID-19 pandemic and especially in answer to the national lockdown. Although in very early days, two interesting papers have demonstrated the use and relationship of nature during lockdown. Firstly, Lemmey (2020) demonstrated the increase of people spending more time in nature and building their relationship with nature in many different ways in comparison to their behaviours before

lockdown. Similarly, through a mixed methods process with parents and carers, Friedman et al. (2021) reported that many of the children increased connection to nature during lockdown. For those children who had decreased connection with nature, parents and carers reported problems with wellbeing.

From a salutogenic perspective physical activity (in this case MPSE physical activity) can play a role in health and wellbeing that reaches far wider than just physical health benefits and the amelioration of non-communicable diseases. This study adds new knowledge to the literature by considering wider resources present for those that take part in MPSE physical activity and framing the health and wellbeing perspective through the lens of salutogenesis.

2.4 Physical Activity

As stated above, physical activity provides Health and Wellbeing benefits. However, to access these benefits participants are required to engage in physical activity behaviours long term (WHO, 2020; Ding et al., 2020). Anecdotal evidence presented in the Introduction Chapter shows MPSEs have been a part of Pembrokeshire lifestyle for a decade with continued high engagement numbers and events continuing to be created in the area to answer demand.

Therefore, it is vital to understand engagement in Pembrokeshire to help explore how participants' commitment to MPSE physical activity in the area has stayed high for so long. This section firstly presents an ecological perspective of physical activity. Literature considering determinants and correlates of physical activity and other relevant health behaviours will be drawn on to better understand the role of individuals and their surrounding environments in sustaining physical activity behaviours. Secondly, the concept of physical literacy is presented to frame these arguments.

Ecological approaches have been adopted to explore the role of individuals and surrounding environments on physical activity engagement and other health promotion behaviours (Bauman et al., 2012; Humbert et al., 2006; McLeroy et al., 1988; Sallis et al., 2006; Stokols, 1992; Thornton et al., 2016; Taliaferro and Hammond, 2016; Fleury and Lee, 2006). Sallis *et al.* (2008) provide an extensive review of the range of uses and applications of ecological models. Two main uses of ecological

models are to explain behaviour and to guide interventions. Many have championed ecological approaches to better consider the complex, holistic and interconnected nature of the relationship between humans and their socio-cultural surroundings (Rhodes et al., 2019; Sallis et al., 2008; WHO, 2018). In a recent global action plan, WHO (2018) presents twenty policy actions divided between four strategic objectives reflecting an ecological or 'whole-system' approach. The objectives, 'create active systems', 'create active people', 'create active societies', and 'create active environments', are presented as an intervention for all global societies to adopt. The WHO (2018: 8) hopes this leads to "ensure that all people have access to safe and enabling environments and to diverse opportunities to be physically active in their daily lives, as a means of improving individual and community health and contributing to the social, cultural and economic development of all nations".

In academic literature and research, authors have created nuanced models and explanations that are rightly considered ecological due to their similarities to fundamental guidance described above. For example, Sallis et al. (2006) brought together findings and concepts from different fields of literature (including, but not limited to, health, behaviour sciences, transport and city planning, economic and policy studies) and created an ecological model of four domains of active living. The four domains were 'household activities', 'active recreation', 'active transport', and 'occupational activities'. The authors highlight elements within the levels of environments and settings that have an influence on active living (for example, demographics of the person, family situation, walkability neighbourhoods, school policies, and traffic safety). Whereas, a recent study by Lopez-Canada et al. (2021) used an ecological perspective to analyse the participation of trans people in physical activity. Instead of presenting an illustrated model (like the examples given above and Sallis et al., 2006), the authors list the themes as their key findings. For example, 'body appearance and passing' as well as 'hormone treatment' were generated from analysis of data at an individual level; support from 'family and friends' were highlighted from interpersonal or micro/macro-system level; and 'physical education' and '(un)safe spaces' from community and policy levels (Lopez-Canada et al., 2021). In both these examples given the ecological model or perspective evolved with the data. Therefore, an ecological approach was used in this study in the same way, allowing the data to

inform the levels and environments that were important to the participants. It is also vital to consider the issues using an ecological approach. Rhodes et al. (2019: 105) note that "the socioecological framework is entirely complementary with individual-level approaches as they merely place individuals as actors amidst broader systems", suggesting that the use of the approach alone may not reach the full potential, and provide a social/ context perspective highlighted by Stokols (2018). In addition, Bauman et al. (2012) and Rhodes et al. (2017) suggest that the variables within social cognition or individual level remain the dominant reasons for physical activity. Splitting the approach down to its different levels/environments allows for detailed analysis of a broader perspective but also has potential to neglect the broader cultural influences (macrosystem) and the holistic or interacting nature of the environments. A related challenge when using a social ecological approach is the detail given at each level, there is potential to be vague and not provide specificity on important influences or how these variables interact across levels (Sallis et al., 2008). Therefore, when using an ecological approach, it is vital that the full understanding of the macrosystem is not ignored and we need to fully appreciate physical activity not just as a behaviour, down to the choices of individuals, but rather a complex social practice set within the social and cultural context, allowing for or inhibiting those choices. Burke et al. (2009: 61S) also identifies another challenge of an ecological approach as the "reliance on pre-existing health behaviour theories and constructs for interventions at each level". Although this requires knowledge and further understanding of other concepts, this can also be an advantage to an ecological approach in taking strengths from other constructs to further analyse culture. A concept that can support this and a more holistic consideration of physical activity engagement is Physical Literacy.

2.4.1 Physical Literacy

Physical literacy has gained popularity in the last two decades across many fields of literature. The first use of the phrase has been found as far back as 1884 (Cairney et al., 2019b). However, its frequent, early use was seen in American education documents during the 20th century. Physical literacy was highlighted as one of the key objectives for the education system, equal to "mental literacy" (Pennsylvania State Education Association, 1930: 12, cited in Cairney et al., 2019b), in response to the urbanisation of communities and the inventions modern machinery that "has

produced new American diseases" (National Education Association of United States Department of Secondary Teachers, 1935: 288, cited in Cairney et al., 2019b). In addition, the term "physical illiteracy" was used in a medical journal (American Medical Association, 1939: 130) to highlight the decreasing physicality of the public. Through analysis of the early uses of the term Cairney and colleagues (2019b: 82) demonstrate that physical literacy was once considered of equal importance to other literacies (such as numeracy and language literacy, and mental literacy) as part of the holistic development of a child and an idea that encourages a physically active lifestyle to allow for "better health and broad participation in life".

Reintroducing the term at the beginning of the 21st century, Margret Whitehead (2001) defined a,

> "physically literate individual [as one that] moves with poise, economy and confidence in a wide variety of physically challenging situations. Furthermore, the individual is perceptive in 'reading' all aspects of the physical environment, anticipating movement needs or possibilities and responding appropriately to these, with intelligence and imagination".

This reintroduction was a response to the diminishing focus of PE in schools, the subject's decrease of curriculum time, and as a suggested change of focus from the traditional forms of PE as sport development (Lundvall, 2015). Whitehead (2001; 2004; 2007) framed physical literacy around the concept that every individual is "embodied", and underpinned physical literacy with three philosophical perspectives, namely, monism, existentialism and phenomenology. Doing this helped with her argument firstly against educational structures that are based around a Cartesian, dualist perspective. Monism views the body and mind as one indivisible entity (Whitehead, 2010; 2013), neither is more important than the other but seen as whole or one (Schaffer, 2010; Stubenburg, 2011). Supported by the work of Sartre (1957: 476) in sum "for human reality, to be is to act". This perspective proposes holism and allows us to acknowledge the relationship between its parts, as cooperative and harmonious rather than subservient, as echoed in the low priority given to physical activity in UK schools (Whitehead, 2007). Secondly, existentialism and phenomenology both support the pedagogy encouraged of high-quality teaching and learning. Existentialism

recognises that each individual has a relationship with the world (Webster, 2002). It is from this relationship and on-going interaction and dialogue with the world that individuals are created (Burkitt, 1999; Whitehead, 2010; 2013; Durden-Myers et al., 2018), in practice, this is reflected in the need for many different environments for physical activity and the autonomy given to the children in these experiences (Pot et al., 2018). Similarly, it is the belief of phenomenology that the *worldview* of one individual will be uniquely different to that of another based on their past experience (Whitehead, 2010; Gallagher, 2012). Pot et al. (2018) demonstrate that this thinking is linked to more child centred approaches to teaching where they are choosing their own path in learning (choosing level of challenge) or creating their own way to answer tasks. This can be applied further to adults as independent thinkers and decision makers. In the early stages of the contemporary resurgence of physical literacy Whitehead (2001; 2013) was talking directly to educationalist and used the philosophies to support the new approach she was suggesting. However, little focus has been given to how physical literacy, underpinned by these philosophies, frames physical activity habits in the adult population. Moreover, analysing the work of Sartre and Merleau-Ponty, both influential writers for Whitehead in physical literacy development; there are several areas where the existentialist and phenomenologist have similar views (Whitehead, 2007; 2010) but on several counts would not agree. Moreover, critiques have demonstrated that the three philosophies are self-contained approaches and not meant for mixing (Grix, 2002). Many also suggest that it is the underpinning philosophies that makes physical literacy difficult to comprehend (Shearer et al., 2018). Throughout her work, Whitehead, continually refers back to these philosophies but has failed to critique further, even as her own definition initially, was clearly underpinned by the philosophies but has evolved to potentially lose sight of them (Standal, 2016) as in the most recent definition from Whitehead (2019: 8, emphasis in original),

> "as appropriate to each individual physical literacy can be described as the motivation, confidence, physical competence, knowledge and understanding to value and take responsibility for engaging on physical activity for life" (IPLA, 2017).

This shift in tone from her earlier work is arguably down to concept being picked up by global policies and a need for the concept to be accessible rather than esoteric. However, Keegan, Barnett and Dudley (2017) question why particular elements were chosen over others. For example, a high-profile definition of physical literacy has included the social domain as part of the definition of physical literacy but in a recent webinar Whitehead still insists social domain lies outside physical literacy, rather is part of the context and environment surrounding the individual (Whitehead and Green, 2020).

That said, over the last two decades Whitehead and her team at the International Physical Literacy Association (IPLA) have led the development of physical literacy. A recent systematic review demonstrates that 70% of the studies reviewed adopted Whitehead's definition of physical literacy (Edwards et al., 2017). The uptake of physical literacy has been substantial, the majority within education and child development literature but because of the life-long element of the concept has seen interest from public health policy around the world. For example, Public Health Wales and Sport Wales collaborated on the *Getting Wales Moving* report, highlighting physical literacy as a "core component of an active Wales" (Public Health Wales/ Sport Wales, 2017: 2). Similarly, work by Australia Sport Commission (now known as Sport Australia) undertook an extensive process to develop the Sport Australia Position Statement on physical literacy and a framework to support the efforts of all Australians to "develop their physical literacy at every stage of life" (Sport Australia, 2019). Originally both Sport Wales and Sport Australia were concerned with elite athlete development for their respective countries, however, there is an obvious shift in a recent publication that looks to improve engagement in physical activity at all levels of the nation. Notably, the emphasis within the Sport Australia approach is about the physical literacy of children and young people, due to the resources targeting parents, coaches, schools and their "commitment to creating a healthier generation of more active Australians" (Sport Australia, 2019). Moreover, although the Public Health Wales/ Sport Wales (2017) report takes a broader perspective, focusing on "active places, active communities, active travel, active workplaces, and active education", physical literacy is only referenced when discussing education and child development. Consequently, both overlook the opportunity to use physical literacy as a dynamic lens

to address the physical activity behaviours from cradle to grave. Due to dominance of physical literacy literature covering education and child development there is little evidence to support its potential in health policy for the entire population.

Whitehead (2010; 2019) has highlighted the importance of physical literacy, not only in response to the dualist nature of educational structure but the dualist nature that is seen in wider society. Whitehead (2010; 2019) highlights the response to worries of increased sedentary behaviour; issues of poor health and wellbeing of a high proportion of the population; serious concerns over obesity and increased mental health issues; as well as continued decrease of people taking part in physical activity or engaging in healthy active lifestyle behaviours throughout life. Although these connections to public health have been made there has been limited work considering the role of physical literacy and promoting health behaviours (Cairney et al., 2019a). Cairney and colleagues (2019a) do initiate this discourse, however, most of the literature called upon in this paper is based within education and child development, and therefore the conceptual physical literacy health model provided is heavily focused on children and only briefly discusses the concepts past school age. Within their model is a very narrow representation of physical literacy throughout life. That said, the authors do highlight that this is some of the first work addressing physical literacy and health, so more research and discourse is required. Due to the current limited literature around health and physical literacy it is important to explore current physical literacy literature and research to understand and support the claims made by the authors above. It will also allow better understanding for physical literacy throughout life.

2.4.1.1 Physical literacy issues

The IPLA (2017) definition, written by Whitehead, is the most used definition of physical literacy internationally (Edwards et al., 2017; Young, 2019; Tremblay et al., 2018). Specifically, in 2015 Canadian sector leaders advocated for this definition to be used as a consensus statement across organisations in Canada to "provide clarity for the development of policy, practice and research" (CS4L, 2015). That said, authors have been sceptical as to whether this has been adopted fully. For example, while evaluating the Canadian Sport for Life (CS4L) model of Long-Term Athletic Development (LTAD) (Balyi et al., 2013), Allan et al. (2017) noted that the physical

literacy strategies within the model focused on physical skills and motor development. Although, physical competence is one of the highlighted elements in the Canadian consensus statement there is an argument that its dominance means that other elements or the complexity of the concept as a whole is neglected. Similarly, Robinson and Randal (2017) question whether the model truly acknowledged the holistic nature of physical literacy. This illustrates the first issue regarding the multiple perspectives of physical literacy – the separation of the elements within the definition and the dominance of some elements over others. Potentially due to the high proportion of research being done within education, specifically physical education, physical competence (movement competencies, fundamental/ foundational movement skills (FMS) and motor development) has had most of the focus in physical literacy research (Sheehan et al., 2011; Haughey et al., 2013; McKee et al., 2013; Weinburg, 2013; Lundvall, 2015; Edwards et al., 2017). Edwards et al. (2017) even identifies physical literacy definitions solely from the physical domain. A big concern amongst researchers and those with a vested interest in this area is the decrease of physical activity habits among children and adolescents (Capel and Whitehead, 2012; Guthold, Sevens, Riley and Bull, 2020; Brown, Dudley and Cairney, 2020) and the need to develop FMS to ensure children are equipped with the skills to be physically active throughout life (Wainwright et al., 2018; Goodway et al., 2019). As authors have demonstrated, this is a legitimate element of physical literacy and some have even demonstrated how focusing on this does not negate the two-way connection and relationship it has with other attributes of physical literacy (Hulteen et al., 2017). However, this focus has led to a misunderstanding, and the second concern around the concept – physical literacy is synonymous with physical education. For example, in the second edition of the highly cited *Debates in Physical Education*, a chapter uses Whitehead's definition to explain the term 'physical education' and says "…physically educated or as Margaret Whitehead would describe, being physically literate…" (Blair and Guildea, 2020: 69). Similarly, in a recent policy update (AAHPERD, 2013) SHAPE America replaced the words physical education or physically educated with physical literacy or physically literate (Lounsbury and Mckenzie, 2015). Leaders of SHAPE America (Roetert and Jefferies, 2014: 38) have backed the change pointing to the use of UNESCO's definition of 'literacy' – "UNESCO identifies literacy as being more than just reading and writing. It is about how we communicate in society, and it includes social practices and

relationships as well as knowledge, language and culture". The UNESCO definition (as adopted by SHAPE America) is problematic in a number of ways. For example, Lounsbury and Mckenzie (2015) and Hyndman and Pill (2017) have raised a pressing issue that the exchange of PE for physical literacy has caused "definitional blurring" (Hyndman and Pill, 2017: 296) and shifted the main focus of PE from psychomotor to cognitive outcomes (Lounsbury and Mckenzie, 2015). Their concern is down to the misconception and limited understanding of 'literacy' as the common definition is the ability to read and write (Lounsbery and McKenzie, 2015).

Interestingly, over the last two decades there has been a real interest in the notion of literacy. Within two years UNESCO had provided two documents highlighting their interest and value of literacy. The first provided a definition of literacy encouraging linguistic literacy (UNESCO, 2004). Using this authors have adapted this statement to define physical literacy (Dudley et al., 2017: 6). Even Whitehead provides a definition of physical literacy adapted from this statement, demonstrating that it can be applied to other literacies (Whitehead, 2019: 15). It is worth noting that Whitehead does not intend for this to replace her own definition:

UNESCO (2004) statement:

"The ability to identify, understand, interpret, create, communicate and compute, using printed and written materials associated with varying contexts. Literacy involves a continuum of learning in enabling individuals to achieve their goals, to develop their knowledge and potential, and to participate fully in their community and wider society."

Dudley, Cairney, Wainwright, Kriellaars, and Mitchell (2017: 6) adapted statement:

"The ability to *move with confidence and competence* using *all the physical assets an individual has at their disposal at any given point in time across* varying contexts. *Physical* literacy involves a continuum of learning *by* enabling individuals to achieve their goals, to develop their knowledge, *movement* and potential, and to participate fully in their community and wider society".

Whitehead (2019: 15) adapted statement:

"Physical literacy *is defined as a human capability that can be described as* the ability to identify, understand, interpret, create, respond effectively and communicate, *using the human embodied dimension, within a wide range of situations and* contexts. *Physical* literacy involves a continuum of *meaningful experiences* enabling individuals to achieve their goals, to develop their knowledge and potential, and to participate fully in their community and wider society".

Both, Dudley et al. (2017) and Whitehead (2019) praise the UNESCO document for highlighting that the term 'literacy' is about engaging in society (or the world) and the individual reaching full potential.

Using UNESCO's (2006) *Literacy for life* document, Dudley et al. (2017) present the four discrete understandings of literacy and how they can provide improved awareness from a physical literacy standpoint. The aim of the UNESCO (2006: 147) paper was to consolidate theoretical diversity of literacy, thus, producing four "understandings" of literacy:

- 'literacy' as autonomous set of skills: According to UNESCO (2006) the most common understanding of physical literacy is autonomous set of skills. From a physical literacy point of view policies and practices from areas such as education and health and sport, instead of focusing on the development of the physical self through life stages, have seen "unprecedented government intrusion" (Dudley, 2017: 438) to try and improve test scores or health indicators. The dominance of this 'understanding' may therefore impact the ability of PL policies that allow for progression and development over time (Dudley, 2017) and may also be the reason for misunderstanding of physical literacy being primarily a set of skills.

- 'literacy' as being applied, practiced, and situated: The importance of social context and society in the development of literacy is seen throughout the UNESCO (2006) document. Historically, skills of literacy were believed to be learnt by everyone in the same way, no matter the social context or society they were apart of (UNESCO, 2006; Dudley, 2017). Since then, this perception has been rejected with many authors arguing the evolution of literacy varies by society or cultural context, in ways which are practiced (Barton and Hamilton,

1999; Gee, 1999). Dudley et al. (2017: 438) adds to this by stating "even a presumably objective skill can be socially situated and interpreted".

- 'literacy' as a learning process: The third understanding considers the learning experiences in the development of literacy. Dudley et al. (2017: 439) uses theorists such as Piaget, Dewey and Kolb to demonstrate that "as an individual learns, they become increasingly literate". Therefore, it is important to understand how a person constructs knowledge and the critical role of experience in becoming more literate.

- 'literacy' as text: The fourth understanding may not seem to have much to do with physical activity however Dudley et al. (2017) uses the work of Bhola (1994) to show the relevance of text as subject matter. Text varies by subject or genre (textbooks, professional publications and fiction). The use of text providing discourse adds to wider socio-political practices "that construct, legitimate and reproduce existing power structures" (Dudley et al., 2017: 439).

Whitehead is very critical of the UNESCO (2006) 'understandings of literacy'. Although Whitehead (2019) does not reference Dudley (2017), she argues that the 2006 'understandings' dismiss the notion of the relationship individuals have with the world. However, when discussing the third 'understanding' the UNESCO (2006: 152) document is quick to demonstrate how this relationship is vital to appreciate literacy fully. Using the work of Freire (1993, 1995) UNESCO (2006) highlight the importance of 'critical literacy',

> *"a goal to be attained in part through engaging with books and other written texts, but, more profoundly, through, 'reading' (i.e. interpreting, reflecting on, interrogating, theorizing, investigating, exploring, probing, and questioning) and 'writing' (acting on and dialogically transforming) the social world."*

Discussing the four 'understandings', Whitehead (2019: 17) notes that PL does not fit solely with any of these understandings but aspects of each "could be seen to resonate, to some extent, with physical literacy", potentially stumbling on the intention that both UNESCO (2006) and Dudley et al (2017) had from the beginning – that (physical) literacy be seen as a consolidation of all these understandings.

Arguably, much of these issues are not down to the definition or concept as a whole, but the organisation's interpretation and operationalisation of, or role within, it. Shearer et al. (2018) suggests that this may be due to the greater funding streams investing in children's health or the convenience of the youth population for access and impact. The authors suggest "a more holistic approach needs to be taken to consider physical literacy across the lifecourse" (Shearer et al., 2018: 243). However, it may be too much to expect any organisation or player to "devote their efforts exclusively to building physical literacy as it is defined" (Corbin, 2016: 17). Corbin (2016: 17), using the example of Canada's multi-institutional model, explains that organisations have a central aim to develop physical literacy as defined by the consensus statement, but it makes sense that each organisation will "emphasise different characteristics of physical literacy consistent with institutional purpose, philosophy and expertise". Using this logic, physical education's (or any institution or research group in this area) focus can be on psychomotor outcomes or the physical domain while still playing a role in the development of children's physical literacy as a whole supporting the opinion of Lounsbury and Mckenzie (2015) and Hyndman and Pill (2017). More importantly for this study, there is no clear picture of what physical literacy looks like for adults that is universally agreed. Moreover, authors continue to revert to education or childhood setting when giving examples. For instance, when discussing the connection between the third understanding of literacy ('literacy as applied practiced and situated', UNESCO, 2006: 151) and physical literacy, Whitehead (2019: 17) states "a well-designed learning process is essential to PL as the route of fostering lifelong participation". The language used here suggests an education focus or at least earlier stages of the physical literacy journey. However, the learning process throughout adulthood or the later stages of physical literacy journey may not be "well-designed" or even structured and this needs to be contemplated when thinking about what physical literacy may look like in the adult population. We need to question where and how this expression of physical literacy takes place as it will manifest itself in different ways. The same can be said for the fourth 'understanding' (literacy as text), for physical literacy our subject matter may be in several written forms and accessed in different ways, not just exercise textbooks or research articles but, more commonly now, internet and social media – this brings with it some issues of source quality.

This study intends to help frame physical literacy as a lens suitable for the wider population and therefore will play a part in demonstrating that physical literacy is not just physical education. Additionally, the study will provide research based outside education literature and provides research involving the adult population. More specifically, the use of physical literacy as a resource for physical activity.

The increased popularity of physical literacy in literature and research has inevitably attracted authors to challenge, explore, and present a diverse array of perspectives, and nuanced understandings of the concept of physical literacy (Chen and Sun, 2015; McKean, 2013; Tremblay and Lloyd, 2010). Some have raised concerns that this definition diversity has generated inconsistency and conflict within the physical literacy community (Shearer et al., 2018; Dudley et al., 2017; Jurbala, 2015; Temblay and Lloyd, 2010). In recent years several groups of authors have been involved in the definition discourse (Edwards et al., 2017; Shearer et al., 2018; Hyndman and Pill, 2018; Keegan et al., 2017a; Young, 2019). It is vital that the concept be considered further for use in this study and a definitive definition chosen to reflect the complex, holistic nature of physical literacy. This also supports the use of the concept to consider physical activity engagement in the adult population.

2.4.1.2 Concept discourse

Edwards et al. (2017) thematically analysed 50 papers that met their inclusion criteria and were seeking to conceptualise physical literacy. The authors present three higher-order themes with subthemes and core categories of each. Two approaches to physical literacy were identified, one being a 'Whiteheadian' approach and the other, the Long-Term Athlete Development (LTAD) approach. The authors conclude that the two approaches cause "inconsistencies between a holistic definition and a definition solely from the physical domain" (Edwards et al., 2017: 122). The LTAD approach focuses exclusively to the physical elements of physical literacy and is more specific to sports participation. They suggest that the LTAD approach therefore can be accommodated within a Whiteheadian approach but not the other way around. Edwards et al. (2017) goes on to suggest that these differences either need to be resolved or the diverse approaches need to be embraced. However, the acceptance of a definition solely in the physical domain would diminish the holistic nature of 'literacy' and substantively challenge the monist underpinning of the construct.

That said, when discussing the 'Whiteheadian' approach (which was adopted by 70% of the papers analysed), the authors note that the underpinning philosophies (especially monism) and the properties of physical literacy are "ill-aligned" in research at present (Edwards et al., 2017: 122). To date the interlinking constructs of physical literacy are largely considered as separate entities. Therefore, consideration needs to be given to the promotion of the relative importance of each (Edwards et al., 2017). Recent work from Whitehead (2019) and Sport Australia (2018/9) have made steps to improve this, specifically the adoption of overarching domains in language used. However, more needs to be done to demonstrate the connection between domains as well as clarify or demonstrate the significance of assumptions set by the underpinning philosophies.

Authors on behalf of Sport Australia also reviewed physical literacy definitions through a Delphi process (Keegan, 2019) to analyse best available current research and evidence of physical literacy to create the physical literacy standard that is clearly defined for an Australian context (ASC, 2018). By already understanding the communalities and core elements of physical literacy the process compared known definitions of physical literacy in use around the world against these elements. Table 2.1 shows the key findings from the Delphi process (Keegan, 2019).

Table 2.1

Dephi process key findings (Keegan, 2019)

Core element of physical literacy	**Comments made about presence or absence of element**
Holistic nature	- Common element through many of the definitions
Developmental journey	- Critical of definitions that suggest physical literacy is a state to be pursued
For life	- Phrases used to highlight life-long construct - Critical comments for definitions with only children focus

Presence of domains - Physical - Cognitive - Psychological/ Affective - Social	- Critical of specific attributes focus – preferred domain focus - Different domains highlighted by several of the definitions. A mix of domains included in different definitions - Social domain only included in two definitions

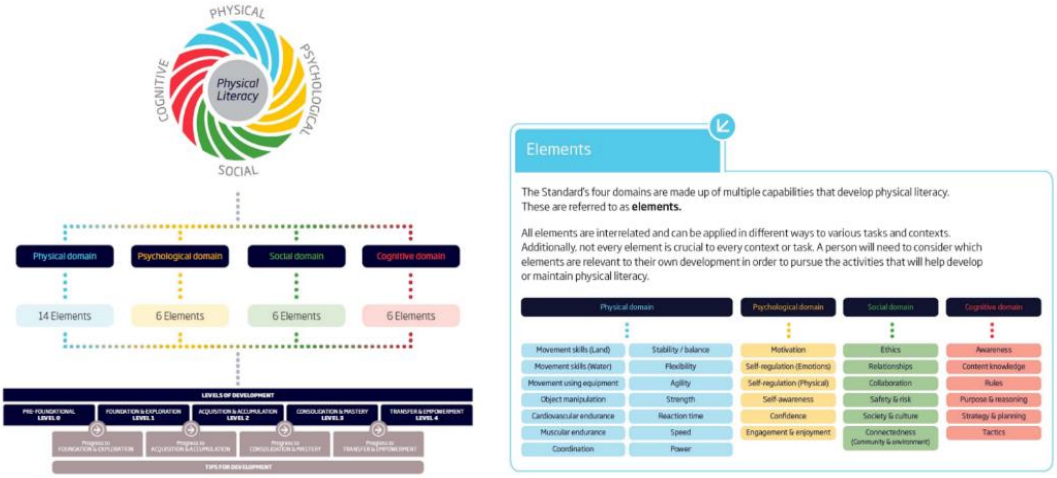
From this process the Australian sport commission have provided a framework, including a definition, and standard. Refinement has taken place over the past three years with new publications earlier this year (Sport Australia, 2020) Sport Australia Definition for physical literacy is,

> "Physical literacy is lifelong holistic learning acquired and applied in movement and physical activity contexts.
>
> It reflects ongoing changes integrating physical, psychological, social and cognitive capabilities.
>
> It is vital in helping us lead healthy and fulfilling lives through movement and physical activity.
>
> A physically literate person is able to draw on their integrated physical, psychological, social and cognitive capabilities to support health promoting and fulfilling movement and physical activity – relative to their situation and context – throughout the lifespan" (Sport Australia, 2019: 5).

Alongside the definition they provide a framework demonstrating the holistic nature of engaging in movement and physical activity "and integrates physical, psychological, social and cognitive capacities" (Sport Australia, 2019: 6). The model (Figure 2.4) is used to demonstrate the holistic integration of the domains. Each domain is made of elements that help explain each domain and "can be applied in different ways to various tasks and contexts". Additionally, the standard also includes 'Levels of Development' that outline the progression or regression stage of an individual.

Figure 2.4

Model of Physical Literacy Domain and elements within each domain (Sport Australia, 2019)



Arguably, one of the key differences between this and that of Whitehead's concept (Whitehead, 2019; IPLA, 2017) is the inclusion of the social domain. The social domain "focuses on the ability to interact with others and the environment in relation to movement" (Sport Australia, 2020), definitions of each element are presented below (Keegan, 2020: 32-37):

- Ethics: Moral principles that govern a person's behaviour relating to fairness and justice, inclusion, equality, integrity and respect in movement and physical activities.
- Relationships: The ability to builds and maintain respectful and responsive relationships that enable a person to interact effectively with others in movement contexts.
- Collaboration: Social skills for successful interaction with others to achieve outcomes in movement scenarios.
- Safety and Risk: Understanding of risks, risk-management and safety considerations for self and others in movement contexts

- Society and Culture: Appreciation of the diversity, values, rights, responsibilities and constraints of individuals, cultures and societies, and their influence on movement and participation
- Connectedness (community and environment): A person's appreciation for the environment (both built and natural) and belonging to the community.

The 2017 document explaining the Standard identified six elements of the social domain including, ethics, relationships, collaboration, safety and risk, society and culture, and connectedness (community and environment). However, the 2019 version of the standard labels four elements of the social domain, removing safety and risk as well as connectedness (still available on the Sport Australia website (Sport Australia, 2019)). These elements are written from a sport perspective, which is understandable when considering Corbin's (2016) point above where organisations focus on characteristics of physical literacy consistent with their purpose and expertise. However, failing to consider "connectedness" misses a key opportunity to demonstrate the entwined relationship of physical literacy, and therefore physical activity, with social context and society. In a 2020 version, published by the academic authors (Keegan et al., 2020), both have been reinstated. This demonstrates the continuing discourse on the concept and even priority differences within a research group. The perspective taken in this study provides an appropriate opportunity to explore the social domain further and considers all elements presented by Keegan et al. (2020).

When looking generally at concepts Rogers (2000) suggest that evolution is almost inevitable as they get used in different context. This is supported by the work of Sartori (1970 & 1894) who discusses concept changes as it 'travels through' and across different contexts. Specific for physical literacy, due to the nature of the underpinning philosophies, Whitehead (2010: 12) explains how culture can play an important role in the specific expressions of physical literacy for an individual. This cultural influence would lead to the understanding that perspectives of physical literacy would differ from culture to culture (Shearer, 2018). In her new book, Whitehead (2019) seems to embrace this idea further by highlighting the work of different agencies in countries around the world, including, for example, Australia (Keegan et al., 2019); Canada (Sheehan et al., 2019); and India (Markandey and Green, 2019), where several use

their own definition and lens for physical literacy. That said, Shearer (2018) raises a valid point when discussing how much tailoring the sociocultural context should need if the concept is indeed inclusive and universal. Although Edwards (2017) suggests a need for clarity, she and her colleagues also call for a tolerance of different approaches on the condition that researchers are transparent in what they did.

Therefore, positioning research to one definition over another is complex. Young suggests rather than a definitive, or 'correct' definition, research and literature is identified by its level of abstraction from the 'original' definition. However, this may complicate things further and raises other issues as to what is classed as the 'origin' definition. Young (2019) suggests Whitehead's (2001) definition and the use of philosophical underpinning of monism, existentialism and phenomenology. However, as has been discussed previously there can be some criticism with Whitehead's definitions and areas that is lacking (for example, social domain). Whitehead (2019) suggest that the philosophies are the foundation of what physical literacy is, for that reason philosophies should be used rather than an 'origin' definition. As demonstrated by the aims of the study, we are interested in the lived experience of individuals within a MPSE culture. Therefore, this study is of a low "abstraction" (Young, 2019: 2) from the philosophies and considers the holistic nature of taking part in physical activity. Although the IPLA definition informs the majority of UK research and practice, it is important to consider context of this particular study. The fact that this study is concerned with interactions within a community means it is important to consider the social domain and therefore the study will be adopting the four-domain expression of physical literacy as well as considering the underpinning philosophy present by Whitehead.

Across this discourse evolution can be seen since the reintroduction and development of a full concept from Whitehead (2001). Several themes have developed to allow a multidiscipline, complex and holistic position of physical literacy to thrive. Below key points are mentioned, and related adult population consideration mentioned briefly. Key points have shown:

- A move to use domains more than attributes (such as motivation/ confidence etc) as these "held different meanings for different cultures" (ASC, 2017). Domains are "more inclusive and in-line with the holistic nature of the concept" (ASC, 2017). It is

the "interactive and simultaneous considerations of these domains towards engaging and valuing physical movement and/or interacting with the physical world that conceptualises physical literacy" (Edwards, 2017: 121). For the adult population this may be a more crucial considering independence, lifestyle, stressors and habits overlap. Research in the adult population may contribute to further demonstrating the holistic nature of the concept. In this way physical literacy can be linked to an ecological perspective of physical activity engagement as it considers the whole person, where all domains (physical, cognitive, psychological and social) are considered equally and holistically.

- A move away from language suggesting that physical literacy is a state or destination, and movement towards an emphasis on journey and process (Taplin, 2013; 2019). For the adult population this needs greater consideration, especially when considering the underpinning philosophy of phenomenology and how each person's worldview is different and created based on their past experiences.

- The work of Whitehead is still evident when considering the value of physical literacy. The three founding philosophies continue to underpin definitions, approaches and research "the concept is applicable across the lifespan to individuals of all ability levels and will be experienced differently by every person, resulting in an individual physical literacy journey" (Edwards, 2017: 112). Unique journeys of adults will also provide more information on how experiences can influence the process of physical literacy.

- Greater acceptance of approaches, practices and research that are shaped by context and culture. Now more than ever, acceptance of multidiscipline approaches provides fuller image of physical literacy and increase future prospects for the concept (Edwards et al., 2017; Cairney et al., 2019).

2.4.1.3 Key aspects of physical literacy relating to this study

Although the notion of cradle to grave or lifecourse (Whitehead, 2010; 2019; Sport Australia, 2020; Public Health Wales/ Sport Wales, 2017) is one of the most common aspects of physical literacy, at present, very little work has been done specifically looking at physical literacy in the adult population (Rossingnol et al., 2019; Saunders et al., 2018; Edwards et al. 2017; Shearer, 2018). Research in other fields of literature

(such as, sports development) can play a role in understanding how an individual develops in physical activity and exercise. Therefore, the following section will consider these ideas and the recent development of frameworks and level of developments from Whitehead (2019) and Sport Australia (2020) in supporting the notion.

The pyramid of sports development is the most common metaphor when thinking of an elite athlete's development in sport (Prescott, 1999; Kirk, Brettschneider and Auld, 2005; Bailey and Collins, 2013). However, the "only focus is on progressing those identified as talented, and not on the wider group of participants even though these may meet the necessary standards later" (Bailey and Collins, 2013: 249). Simplicity is one of the main reasons for the model's success, however, credibility of the framework is lacking (Bailey and Collins, 2013).

Other frameworks have been developed to consider different foci (i.e. age or stage, elite, sport specific, health and fitness). For example, the Youth Physical Development Model (Lloyd and Oliver, 2012) focuses on the physical qualities (such as competencies and fitness) and when or why the focus on certain fitness components should be emphasised at different ages. The model also suggests the level of importance needing to be given to FMS or sport-specific skills (SSS), endurance and metabolic conditioning identified by age or natural development. The aim of the model is to answer the issue of the overly generic Long-term athletic development (LTAD) theory especially in childhood and adolescents (Lloyd and Oliver, 2012). This model is concerned specifically with the physical domain and does not consider development over the age of 21.

The LTAD model (Balyi et al., 2013) has been highly criticised over the years (Lloyd and Oliver, 2012; Ford et al., 2011; Bailey et al., 2010) and therefore seen as work-in-progress (Ford et al., 2011). One of the first depictions of the model saw physical literacy sectioned off for children positioned at the bottom of the model to demonstrate their understanding of physical literacy as physical skills. This placement also suggested that physical literacy bolstered the sport development pyramid of 'competitive for life'. However, additional attention was given to more recreational 'fit for life' or 'active for life' expressions of physical activity. Since its conception, the model continues to be redefined and has demonstrated two aspects of physical literacy as 'developing physical literacy' (seen at earlier stages of LTAD) and 'physical

literacy for life' demonstrating support for the lifelong aspect of the concept. The criticism from authors (Ford et al., 2011; Lloyd and Oliver, 2012) have highlighted the generic nature of the model is not conducive to a practical understanding. The LTAD continues to focus solely on the physical domain with minimal consideration given to other domains of physical literacy, supporting Edwards et al. (2017) conclusion that LTAD can be accommodated in a domain-focused approach to physical literacy but not the other way around. Interestingly, the model has also changed names dropping 'athletic' to become the Long-Term Development (LTD) framework (CS4L, 2019). Although this move may be due to individuals not seeing themselves as athletes except in a very loose sense (ASC, 2017), the language used by Sport for Life (CS4L, 2019) still focus on athletes and elite sport with an adapted sports development pyramid still present in the model.

The move to at least a partial focus recreational engagement in physical activity and active living has been seen in additional frameworks other than the physical literacy aspect of LTD. Specifically, Lifelong Involvement in Sport and Physical Activity (LISPA) (ISC/ NCTC, 2005) – very similar to the LTAD with a focus on the physical domain, the Developmental Model of Sports Participation (Cote et al., 2007; Cote and Vierimaa, 2014) and the Foundation, Talent, Elite and Mastery model (FTEM) (Gulbin et al., 2013). This latter model demonstrates different pathways including elite and active lifestyles as well as allowing for the complex nature of taking part in physical activity.

Although these models provide insight into development of experience through sport there are aspects of all that do not fully realise the dynamic nature of physical literacy and complexity of lifelong engagement in physical activity.

Recent publications from within the physical literacy community have started to contemplate how this may look from a physical literacy perspective or with a physical literacy application. Recent contributions by IPLA (2019) and Sport Australia (2019) have presented very similar frameworks against which to judge aspects of physical literacy. First, Sport Australia (2019) provides a domain-focused matrix broken down into elements and stage descriptors. Similarly, IPLA (2019) have an identical structure with the characteristics of physical literacy (identified from the definition) in place of the domains (Motivation, confidence, physical competence and knowledge and

understanding), elements of these characteristics and stage descriptors. Both frameworks identify five stages (Table 2.2).

Table 2.2

Comparison of terms used in IPLA (2019) and Sport Australia (2019) frameworks

Stage	Sport Australia explanation of stages		IPLA label of stages
0	Pre-foundational	Experiencing, playing or exploring limited forms of movement	Unaware or dismissing potential
1	Foundational and exploration	Learning and exploring their capabilities for movement	Exploring potential
2	Acquisition and Accumulation	Frequently practicing and refining their capabilities for movement	Developing potential
3	Consolidation and mastery	Able to perform and analyse their capabilities for movement	Consolidating potential
4	Transfer and empowerment	Transfer their capabilities for movement to new different situations	Maximising potential

When the physical literacy process is described as a journey metaphor, the intention is to demonstrate the "individual heading in a particular direction, with a choice of routes and potential diversions along the way" (Taplin, 2019: 239). Expecting an individual to move through the stages step by step and reach the 'transfer and empowerment' or 'maximising' potential stages by, or at some point in, adulthood is overly simplistic. Taplin (2019: 239) also suggests that a physical literacy journey "ideally, becomes progressively secure as life is lived". Although neither Sport Australia (2019) or IPLA (2019) link the stages to specific ages, both organisations have highlighted some connection. For example, Sport Australia (2019: 9) state that the

'pre-foundation' phase is linked to "early childhood stages of life". The stages of 'exploring' and 'developing' potential of the IPLA (2019) framework "will be evident in childhood and adolescence", whereas 'consolidating' potential will "generally be characteristic of adults" (Whitehead, 2019: 77). These ideas at present do not consider the complexity of existential-phenomenology and the multiple factors influencing the development of an individual. Consequently, the journey through different domains could go back and fore through stages, at different points, for many different reasons (for example injury, anxiety or a new activity). The language used in the IPLA (2018) framework, especially the first stage points to this being considered. The authors do not link this phase to early childhood (although connections could be made), instead the word 'dismissing' potential suggests that the individual has the *potential* to access further stages but does not for some reason. The word 'dismissing', however, leads to the understanding that it is within the individual's control to dismiss potential. For many reasons the individual might be classed in this stage, for a certain element, but for reasons that might be out of their control (for example confidence is highly influenced by mental health illnesses such as anxiety or depression). Suggested phrases that may illustrate this better are, unable to access potential; disconnection of potential; hindered potential; or restricted potential.

The idea that the journey is a dynamic process in many different directions would firstly, answer the process vs. outcome debate as well as progress the 'physical literacy as journey' literature. In Tapin's (2013) early work, she uses a life-history graph (Figure 3.5) to demonstrate the journey of the individual's physical literacy.

Figure 2.5

Example of Life History graph (Taplin, 2013)

Note. Taplin uses this graph to illustrate the journey of physical literacy through the life stages.

Although the author states that it is just for visual purposes it does not accommodate the dynamic movement of the journey and therefore the image becomes misleading. The image suggests that physical literacy decreases, but is this too simple? Especially when you consider all the elements within the charting process. Injury may cause a lower classification of physical competence, but would that influence the individual's physical literacy as a whole? The need for visual imagery is important when considering mapping or charting, however trying to illustrate physical literacy in its entirety might be damaging, not only due to the complexity of the journey, but also the understanding of the concept (does it actually decrease, does it stop, pause or slow?). It would be more helpful to illustrate the domains or characteristics along the journey. For example, using Whitehead and Murdoch's (2006) six life stages through which the physical literacy journey travels, each domain or characteristic could be tracked.

The field of sport and athlete development can also help shed light on this process. The three dimensional-athlete development (3D-AD) model (Gulbin and Weissensteiner, 2013) considers the different factors that may influence the athlete. Weissensteiner (2017: 136) argues:

> "[is it] well established that athlete development is dynamic and at times 'chaotic' process due to its inherent variability and resultant performance is underpinned by a complex and individualistic choreography of athletic attributes and skills (i.e. physical, psychological and sport-specific, technical, cognitive and perceptual components) that are in turn, directly impacted upon, or 'modulated' by, a complement of environmental, system and chance factors… The relative contribution of, and relationship within and between, athlete, environmental and system factors, increases and decreases at different times during development."

This detailed consideration from Weissensteiner (2017) demonstrates a sport development model that not only considers the complexity of the journey but also the importance of context and environment around the individual, showing connection to the social domain of physical literacy and an ecological view. As has already been demonstrated, ecology recognises that individuals are embedded within a larger social system and considers the interactive characteristics and two-way relationship between individuals and environments (Sallis, Owen and Fisher, 2008; Golden and Earp, 2012). From a physical literacy perspective, Sport Australia (2019) are the first to explicitly

include focus on the ecology of the individual throughout the lifespan in their definition:

"A physically literate person is able to draw on their integrated physical, psychological, social and cognitive capabilities to support health promoting and fulfilling movement and physical activity – relative to *their situation and context* – throughout the lifespan" (Sport Australia, 2019: 5, emphasis added).

Taplin (2011: 28) has demonstrated that each journey will be unique to the individual due to the "genetic makeup, environmental factors and opportunities" available to them. As the individual travels through and interacts with these contexts and situations they are creating themselves. As holistic beings, the experiences and interactions will have a profound impact on their worldview and embodied dimension. When considering the physical literacy of any individual (specifically adults, for this study) we need to have a holistic existential, phenomenological understanding of where they have been on their journey or how they got to where they are. As beings in the world, it is impossible to separate the domains and development of physical literacy from the context of the individual. As Cairney (2019: 83) suggests "the most powerful aspect of physical literacy is that it is a synthesis construct, weaving together many different disciplinary threads".

The concept of physical literacy provides a contemporary lens that considers several dimensions of the individual as well as the potential to consider the role of the environments surrounding the individual. In using this concept, the study firstly considers the holistic and interacting nature of the individual and their domains or environments as well as elements of different environments presented as gaps in both ecological and physical literacy literature. Secondly, this study offers much needed research exploring physical literacy in the adult population allowing for greater understanding of the concept. Thirdly, this study explores the connection between physical literacy and health, developing the ideas presented first by Cairney et al. (2019). In doing so this study provides a wider consideration of physical activity's role in health and wellbeing.

A wider consideration of engagement in these events are also needed. Pembrokeshire has seen continued rise in MPSEs held in the area over the last decade. Therefore, it

would be remiss not to explore the relationship between the events and community of Pembrokeshire. This not only has the potential to have some influence on physical activity engagement but also the success of the events in the area to benefit the organisers and the resident community. The next section considers the wider relationship between the community of Pembrokeshire and the events they run and host.

2.5 Events and community

Firstly, this section considers the research carried out in events literature generally, discussing the dominance of economic impact reports and mega events such as the Olympics. This review will also demonstrate the areas of interest for this study and position the study in literature gaps in the field. Secondly, the review will focus on subfields of literature relevant to this study, specifically event and sports event tourism and socio-cultural benefits of events. Due to the nature of this study, the influence and role of the community and its relationships with events will be the key focus drawing on concepts such as sense of place and sense of community.

Over the last three decades there have been several substantial reviews of events literature as whole. By the turn of the 21st century, reviews had identified that economic outcomes (for example, additional expenditure generated for an area from hosting an event, most importantly visitor spending) were the dominant focus of events research and were predominantly from an events management perspective (Formica, 1998). Interestingly, the 2000s saw reviews, although still demonstrating the focus on economic outcomes, highlighted the growth of wider perspectives from stakeholder priorities. For example, Harris et al. (2001), identified different interests for invested parties (practitioners, government and academics), where all were concerned with economic outcomes and reasons for event failure, there were several difference of what was deemed most important, from marketing and sponsorship to trends and focuses for events management. Additionally, a more holistic perspective was adopted, where socio-cultural (community cohesion, and engagement) and environmental outcomes (sustainability and footprint of events) were considered and pursued (Hede et al., 2002; Sherwood, 2007). Arguably the most widely cited review,

Getz (2008), saw the need for studies of meaning attachment and experiences, continuing the advancement on socio-cultural interest of events, and the use of both qualitative and quantitative methods. Getz (2008: 422) suggests that the experiential nature of events "requires phenomenological approaches, including hermeneutics, direct and participant observation, in-depth interviews, and experiential sampling". More recent reviews have suggested that there is now a considerable amount of research covering typologies and definitions of events (Mair and Whitford, 2013) as well as calls for still more research on social and environmental focus (Mair, 2012; Mair and Whitford, 2013). Several reviews also highlight the need for variety in approaches and methodologies (Crowther et al., 2015; Getz and Page, 2016; Kim and Kaewnuch, 2018; Gouthro and Fox, 2019). Crowther et al (2015: 103-104) succinctly provides six-point guidance for further research in event literature:

1. Embrace a plurality of methods – "despite the decline there continues to be a predominance of objectivist, survey-based methods".
2. Adopt multiple methods within a single study – "to reveal a more holistic picture".
3. Liberate multiple stakeholder voices – "the contingent character of events commands such an approach to reveal a richness and breadth of knowledge".
4. Reveal the subjective character of events – methods are needed that provide opportunity to reveal rich information on events.
5. Use surveys only when they are fit for purpose.
6. Transparency of philosophical viewpoint.

In their review of reviews, Getz and Page (2019) summarise the key points from 25 review articles, book chapters or conference papers. The authors found that the growth of published event literature is accelerating with context and approaches covering a wide variety of related fields as well as specialisation of themes, such as, festivals (Wilson et al., 2017), business events (Lee and Lee, 2014), event tourism (Getz, 2008; Getz and Page. 2016), and sport (Parent and Chappelet, 2015).

Although there are no explicit reviews of research on sports events (Getz and Page, 2019), both Kim et al (2013) and Chappelet and Parent (2015) found that sports events

research was dominated by mega events (such as the Olympics) and more research on growth and community events was needed. Gibson et al (2018: 84) also acknowledged the increasing attention given to the lived experience of an aspect of active sport tourism – "those who travel to competitive events". Several of the more general reviews identify the high number of sports events within the research. For example, Sherwood (2007) noted that 60% of the papers reviewed were sport events based and Kim et al. (2013) reported that the most frequent events covered in the 178 research papers reviewed were sporting events (22.5%). Similarly, to general event research, authors have also evidenced the dominance of high profile, professional and international events (Getz and Page, 2019; Getz, 2020) and the focus of economic benefits within sports events literature (Gammon, 2020). Within the sport event field is varied and exceedingly diverse themes and subjects and topics, from legacy (Bauman, 2015); participation (Miller, 2012) to spectators, event audiences and hooliganism (Hunt et al., 1999; Mackellar, 2013), to tourism (Gammon and Robinson, 2003; Gammon, 2010, 2015; Jarvie, 2012). Other areas of literature have used sports events as a focus, such as sociology and psychology.

Misner and Schulenkorf (2016) point out that "few empirical studies on sport events have examined disadvantaged communities or documented "local voices" regarding the management and development of event projects. This has guided the current study to include phenomenological approaches allowing the experiences and meaning of athletes and residents to be heard, giving voice to important members of society to better understand the role of the wider community in MPSEs and athlete participation. Sport event literature has been dominated by mega and major events (such as the Olympics) with economic impact research, this study continues the more recent work in highlighting the importance of socio-cultural perspectives and small-scale and community level events (Parent and Chappelet, 2015).

Before continuing it is important to highlight and clarify the different categories of events. When categorising events many authors have used the same labels, for example, special, major and, hallmark. However, there have been some differing uses in literature causing confusion and sometimes neglect of certain types of events (Gammon, 2020; Jago and Shaw, 1999). Moreover, there seems to be a disconnect between categories in events literature, although the difference between categories

can be substantial, they can learn from each other, for example, community events have similar characteristics to festivals (see Duffy and Mair, 2018). From a social and community perspective “festivals reveal much about culture and the functioning of societies” and therefore studies can learn a lot from festival research (Getz and Page, 2020: 73) to gain the socio-cultural perspective to balance economic and business influences of event management. Getz (2020) makes the point that a general understanding of the common ideas of each are enough to use in literature even though labels may be different. For example, the Olympics have been referred to as a hallmark event (Dunn and McGuirk, 1999), major event (Misener et al., 2013) and a mega event (Kassens-Noor, 2015). As the study is set in Pembrokeshire, Wales, the labels, and descriptions used for each category of event will reflect that of the Welsh Government policy documents (WG, 2010; PCC, 2014) (Table 2.3).

Table 2.3

Descriptions of Event Categories (PCC, 2014)

Category	Description and relevance to Pembrokeshire
Major Events	Defined by their scale and ability to attract international audiences and media coverage. These events are peripatetic, one-off, externally owned and would have to choose Wales as its destination. A Pembrokeshire example of a major event is the Red Bull Cliff Diving Championship.
Mega Events	Much like major events, these peripatetic events have a global interest but are different from major events because of the high-level government resources needed for new venues, building, and supporting infrastructure. The Olympic and Paralympic games would be classed as mega events. In their own Major Events Strategy, Pembrokeshire (PCC, 2014) list Mega events but note that “whilst welcome, are unlikely to be held in Pembrokeshire” and therefore are not included within the scope of their action plan for the region.

Signature Events	Similar to major events, these will most likely have an international appeal but unlike above they will be recurring. Welsh Government (2010: 5) identify successful signature events as those that "enhance the image and cultural identity of Wales and provide a high-quality experience for visitors, [and can] continuously re-invigorate and replenish their audiences". The county list Ironman Wales Pembrokeshire as an example of these events in the region. Due to the fact that these events "display a distinctiveness that makes them stand out from the event landscape" they can also be known as 'hallmark events', which is a more common phrase in event literature (Gammon, 2002; Ritchie, 1984).
Growth Events	Smaller events that are regionally or locally focused. As the name suggests growth events have the potential to develop into signature or major events as they evolve and generate more media coverage and a wider audience. Pembrokeshire Major Event Strategy (PCC, 2014) lists the Tour of Pembrokeshire and Long Course Weekend (LCW) as an example of growth events. However, arguably the LCW has now reached the status of signature event as will be demonstrated later in the study.
Community Events	Although not listed in the Wales Event Strategy (WG, 2010), Pembrokeshire Major Event Strategy (PCC, 2014) list 'community events' within its strategy. Stating that although not the focus of the main strategy, these events develop pride and confidence on a local level and have the potential to add to tourism offer and become significant events in the Pembrokeshire events calendar. Example of events included in this study were Presei Beast; Tenfoot swim and swim/run;

Saundersfoot and Fishguard triathlons; Tenby go-tri and duathlon etc.

Two recent textbooks covering event studies and literature illustrate the vastness of the overarching field and demonstrate the subfields that have emerged out of the growing literature (Getz and Page, 2019; Connell and Page, 2020). As this study is concerned with the culture around MPSEs Pembrokeshire and therefore the support of the community, it is important to narrow the scope of the study to the relevant subfield of event literature. This is easier said than done with Wilks (2013: 4) demonstrating that event research, specifically those with a socio-cultural perspective, lies at the "crossroads of several disciplines". Due to the nature of mass participation sport events and their use by organisers to attract visitors to the area, this study is positioned within sport event tourism. These events are concerned with attracting active sports tourists (Gibson, 2018) using Pembrokeshire's environment and community as the resources/ assets to do so. Although talking about festivals, Duffy and Mair's (2018: 8) comments are relevant to sports events,

> "the challenge in festival research lies in understanding, identifying and measuring the impacts of events on the local community in ways that capture their intangible benefits – such as civic pride, community cohesion, community identity and a sense of belonging – addressing issues of social justice in ways that acknowledge the complex, fragmentary, difficult and even agonistic social relations that operate in public spaces. Such partial and fragmentary relations that unfold during and around the festival event are significant to the formation and transformation of what community means for that particular time and place. This, in turn, has implications for the social and spatial organisations of neighbourhoods, towns and cities and how issues of social capital, cohesion and justice are valued."

Because the study is not concerned with the workings of the events per se, the view of Richards and de Brito (2013: 234) is suitable for this study, they argue for a "social science view of how events articulate with social processes and structures" providing a complementary but contrasting perspective from the predominantly management based and one-event-focused approaches. Events in this study then act as a "social milieu" or backdrop to understand the processes, interactions, and structures within the culture (Dashper et al., 2014: 2). Therefore, the following section will focus on event tourism, and the place of community and local residents.

The subfield of event tourism has grown at an immense rate. Similar to general events literature it has been dominated by economic impact studies (Getz and Page, 2019; Connell and Page, 2010) as well as studies that focused on one, normally mega or major event at a time (Connell and Page, 2020). Getz and Page (2016) presents five core propositions of event tourism:

1) Events attract visitors who may not otherwise visit the area.

2) Positive destination image and branding.

3) Contribute to place marketing and place making.

4) Animate cities, resorts and parks.

5) Catalyst for other forms of development.

That said, economic initiatives are arguably one of the main reasons for cities hosting higher profile events (such as Major and Signature). As Frost and Frost (2019) demonstrate, from the perspective of regional economy it is the visitors' and tourists' money that is the most important for economic gains. Local people attending events is irrelevant, "they have only shifted their expenditure options within the economy. Only tourist money counts, their money is new money which the destination would not have gained without the event" (Frost and Frost, 2019: 84). Therefore, events are fundamental to any tourism initiatives and policies as key promotional tools to attract visitors and be nationally and internationally competitive (Getz and Page, 2016). As illustrated by previous reviews economic impact was evaluated and reported in the early years of event research (Getz, 2008; Getz and Page, 2016). However, the majority of these studies focused on mega or major sporting events, or at least elite level sporting events. These studies ranged in publication date from the mid 1990s to 2010. Moreover, these economic reports were criticised by several authors throughout this decade raising concerns over validity, use and overestimation of these reports (Mules and Faulkner, 1996; Jones, 2001; Horne, 2007; Preuss, 2007; Getz, 2009: 389; Rojek, 2013). Horne and Manzenreiter (2006) noted that economic benefits acquired are disconnected from local communities and local development. As part of this study considerations are given to Pembrokeshire County Council's own actions and strategies around economic outcomes of major events in the area as well as connections made from these events to the community.

As a tourist destination wanting to attract continual “new money” and visitors to the area, attention is given to ‘destination image’. Emerging out of sense of place literature, destination image has defined as “the sum of beliefs, ideas and impressions that a person has of a destination” (Crompton, 1979: 19). The wider idea of sense of place is concerned with the emotional attachment to place and the meaning given to those places (Cresswell, 2015). Sense of place can be positive or negative and depends on how a person or group reacts to a place’s elements of culture (Tuan, 1977).

More specifically, research around destination image has been criticised for not “conceptualising the term precisely” (Bearli and Martin, 2004: 658). Thus, work has been done to develop succinct frameworks (Baloglu and McCleary, 1999; Josiassen et al., 2015) underpinned by theory (Kock et al., 2016) as well as measurements of the concept (Stylidis et al., 2015). That said, although definitions have differed, similarities have remained agreeable with Crompton’s (1979) definition (Del Bosque and San Martin, 2008; Kock et al., 2016; Baloglu and McClearly, 1999; Josiassen et al., 2015). Moreover, it is widely understood that a positive destination image is associated with the destination’s ability to retain tourist numbers (Ahmed, 1991; Kim and Lee, 2015).

Destination leaders and destination marketing organisations (DMOs) are therefore concerned with influencing destination image of visitors to the area. In a competitive tourism market destinations need to set themselves apart from others. Hosany and colleagues have highlighted the term ‘destination personality’ (Hosany et al., 2006; Ekinci and Hosany, 2006) as characteristics and unique traits of a destination that can be used to differentiate and position the destination within the market (Balogu et al., 2014; Usakli and Baloglu, 2011; Chen and Phou, 2013). Destination personality has been linked to branding literature (Chen and Phou, 2013). Yet again, studies within the literature focus on the role of mega and major events as a strategy to transform or improve destination branding (Frisby and Getz, 1989; Hall, 1997; Gursoy et al., 2011). However, some studies have highlighted the temporary nature of mega-event tourism interest post-event (Chalip, 2017). This, again, illustrates the importance of both major and hallmark events as well as growth and community events (Taks, 2013; Hemmonsbey et al., 2018) complimenting each other within the region (Taks, 2015). From a destination marketing/ managers’ perspective, events are seen as important tools in image, brand and place making.

Destination or place branding is considered one of the most powerful tools for marketing a destination (Morgan and Pritchard, 2002; Usakli and Baloglu, 2011), and differentiating said place from the ever-growing market (Cai, 2002). Destination branding can be defined as,

> "the set of marketing activities that (1) support the creation of a name, symbol, logo, word mark or other graphic that readily identifies and differentiates a destination; that (2) consistently convey the expectation of a memorable travel experience that is uniquely associated with the destination; that (3) serve to consolidate and reinforce the emotional connection between the visitor and the destination; and that (4) reduces consumer search costs and perceived risk" (Blain, Levy, and Ritchie, 2005: 337).

The brand is based on what the destination deems to be their unique selling point. Previously, many destinations look to physical attributes to define them (Usakli and Baloglu, 2011; Ekinici et al., 2007). However, more recently self-congruence has been applied to tourism destinations (Usakli and Baloglu, 2011; Hosany, Ekinci and Uysal, 2006; Ekinici et al., 2011). As demonstrated by general market research studies this can be explained as "the set of human characteristics associated with a brand", where brands would be preferred over others if the consumer can relate her own personality traits to that of a brands, or in this case a destination (Aaker, 1997: 347). Moreover, as the tourist continues to identify with a destination they are more likely to recommend and return (Usakli and Baloglu, 2011). Similarly, branding can help identify destinations with certain products or experiences (Lim and Weaver, 2014; Murphy, Pritchard and Smith, 2000). For example, anecdotally, Pembrokeshire has been identified internationally as the county with the most triathletes over anywhere else in the world, naming Tenby "Iron Town" (Smith, 2018). One hallmark event also rates highly on many top 10 lists internationally as well as athlete choice awards from the brand; with the 2019 race scoring in the top 10 of all but one of the nine categories (Ironman, 2020). This is also supported by a recent study that uses the 'fit' theories from sport sponsorship literature. Oshimi and Harada (2019) demonstrate that just as image transfer happens between events and their sponsors so too does image transfer between high profile events the host city. As Kock et al. (2016) demonstrate, destination image is formed by many overlapping and diverse components such as information directly from the destination, news articles, word-of-mouth or personal experience, all being interpreted differently by each individual (Smith, 1994; Tasci and

Gartner, 2007; Tasci and Kozak, 2007). This socially constructed nature of place-meanings requires destination branding strategies to consider sense of place to engage individuals (Campelo et al., 2014).

As Campelo et al. (2014: 154) suggest a "destination is both a geographical place and a metaphysical space determined by a network of meanings and values that are attached to it". It is, therefore, the place, and everything that constitutes the place (networks, relationships, shared understandings, and experiences) that determines the nature of the destination (Campelo et al., 2014). Therefore, it is not just the place branding actions of the organisers and destination leaders that influence the creation of place for the visitors but also the behaviours, attitudes and interactions of the local community (Gursoy, Chi and Dyer, 2010; Sharpley, 2014; Bimente and Punzo, 2016). Wider tourism literature demonstrates that favourable attitudes and pro-tourism behaviours from the host community influence satisfaction and loyalty felt by visitors and successful tourism activities (Alegre and Cladera, 2009; Stylidis and Terzidou, 2014; Nunkoo and So, 2015). Several studies have classed pro-tourism behaviours as willingness to accept inconvenience that comes with tourism; willingness to interact with tourists; feelings of pride to have tourists visit; behave appropriate and welcoming towards tourists; understand the benefits of tourism for their community; positive word-of-mouth recommendation to friends and family (Chi and Qu, 2008; Riberio et al., 2017; Shen et al., 2019; Stylidis et al., 2014). Similarly, these behaviours were recognised in pro-event behaviours, such having a 'tolerance zone' of negative effects of the event if there is guaranteed benefits perceived (Li et al., 2015; Waitt, 2003; Jackson, 2008); as well as the performance as part of the crowd to create the atmosphere at events (Crawford, 2004).

These studies used questionnaires to examine pro-tourism/ event behaviours, meaning that there was no scope for residents to highlight others. Additionally, these studies were concerned with mega or major events where local residents play little active role in the logistics and running of the event. When focusing on MPSEs from hallmark to community level, arguably this list is incomplete and does not consider the engagement behaviours present, such as community responsibility at events, volunteering for aspects of the events where in some cases members of the

community will have a formal responsibility in the running of events and dealing with road closures for all or part of the day.

The idea that destination image held by visitors is influenced by the behaviours of the residents within the host community, is supported by sense of place literature. As Jarman (2018: 336) suggests, more than a location, place is created out of the "shared social experiences…constructed through shared practices and understandings". Moreover, resident sense of place would allow deeper and more intimate knowing of the place if community engagement was utilised and considered. Tuan (1975: 164) states that "sense of place is rarely acquired in passing. To know a place well requires long residence and deep involvement". Therefore, residents have the key to true sense of place and authentic place-making.

Sense of place is the emotional connections a person has with a place, created from personal and social interactions with the whole culture (Jorgensen and Stedman, 2001; Stedman, 2003). More than a location or space – places are brought alive by people (Campelo, 2015: 58). These connections can have psychological, historical, religious and moral significance. Therefore, from the residents' perspective their sense of place is complex and multifaceted, depending on their attachment to the place and their own place image (Stylidis et al., 2016). As several recent studies have demonstrated, understandably the role of residents' own sense of place including place image and place attachment influences their attitude towards tourism and pro-tourism behaviours (Ganji et al., 2020; Shen et al., 2019; Stylidis, 2020; Stylidis, 2018; Tournois and Djeric, 2019). Interestingly, Shen et al. (2019) highlight a limitation of the current literature where destination image (visitors) measures are directly applied to measure place image (of residents). Stylidis et al. (2016: 661) demonstrates that this "overlooks the multifunctional and daily life world nature of the place for residents". Although these studies have started to improve this weakness, more needs to be done, including a move to more qualitative data generation strategies to hear the residents' voices and appreciate their lived experience (Stylidis, 2020).

Both place image and place attachment are multidimensional concepts within sense of place (Amsden et al., 2011; Chen, 2018; Huang et al., 2018). Place image has been described as expectations and ideas of a place (Assaker, 2014) and include cognitive, affective and conative components (Pike and Ryan, 2004; Gartner, 1996; Schnitzer et

al., 2020). Literature has demonstrated similar components within place attachment, namely, place identity and place dependency (Eusebio et al., 2018; Shen et al., 2019; Chen et al., 2014). More specifically, emotional bonds, meanings, values, and beliefs tied to a place, as well as behaviours and functional commitment and engagement with the place (Kyle et al., 2004b; Loureiro and Sarmento, 2019; Lewicka, 2011; Raymond et al., 2017; Shen et al., 2019).

Interestingly, place image and attachment have been understood in several ways:

- Feeling attached, secure and at home in the place (Oshimi and Harada, 2011; Lewicka, 2008)
- It is a part of self (identity), involved and engaged in what is going on (Lewicka, 2008; Loureiro and Sarmento, 2019)
- Loyalty and pride in the place, "Proud parent syndrome" (Sternquist-Witter, 1985: 19; Lewicka, 2008; Yuksel et al., 2010)
- Shared meanings, beliefs and values, community engagement and social environment (Morgan and Pritchard, 1998; Ganji et al., 2020)

It is worth noting that recent studies have started to consider event image and its relationship to place image and attachment of residents in the same way (Schnitzer et al., 2020). As this research is not considering one event in particular, it is out of the scope of the study for this to be considered here.

More importantly for this study is the competing ideas of what place is (Vuolteenaho and Berg, 2009) and how events occur in places, and because of this, reflect them or even transform them (Nelson, 2009). In doing so events can play a role in creating new and sometimes contested meanings of place. Place distribution refers to the process of change (physical or social) and can lead to displacement and negative emotions (Devine-Wright, 2009). Tourism can cause place disruption (Yoon et al., 2001). Gu and Ryan's (2008) study saw erosion of place attachment caused by disruption to community social interactions caused by the influx of outsiders. This leads to "place-protective behaviours" (Stedman, 2002: 576), or various efforts to prevent changes that people believe will affect their place attachment. Choi and Murray (2010) also suggest that residents who are more attached to place are often acutely aware of the

negative impacts of tourism or found that tourism disrupts their quality of life (Shani and Uriely, 2012). Until recently, the focus within event tourism literature has been if residents perceive positive impact and benefits from events their pro-tourism/event behaviours will be high. As Pavlukovic et al (2019: 39) posits "the greater the positive impacts/ perceived benefits of an event the more positive and supportive the host community will be". This study considers broader community perspectives by providing qualitative data both observing the supportive interactions and engagement behaviours at events and interview residents during ethnographic observations and separate interviews. This will allow other behaviours and community involvement to emerge as well as negative feeling and experiences of events, which further allows the important voices of the community to be heard.

As stated, many raise the point that residents' place image and attachment are antecedents of destination image of visitors and pro-tourism/event behaviours (Stylidis, 2016; Eusebio et al., 2018). Recognising that sensory, cognitive, and affective experiences develop sense of place over time (Campelo, 2015) allows us to create the uniqueness of place experience from the people who live there (Ryan, 2002). As demonstrated destination meanings are socially constructed and culturally dependent (Schroeder, 2009; Campelo et al., 2014). While the inclusion of sense of place from the perspective of residents may create challenges for the destination (stressing their own aims and concerns for events (Getz 2008)) it can facilitate authenticity and a stronger sense of ownership over the brand (Campelo et al., 2014) as well as sustainable development of a destination (Maruyama and Woosnam, 2015; Stylidis, 2018).

Due to the substantial economic benefits generated from tourism development, including event tourism, no wonder that concerned residents are overall found to have positive attitudes toward tourism in previous studies (Andereck, Valentine, Knopf, & Vogt, 2005; Gursoy, Ouyang, Nunkoo, & Wei, 2019). Although economic outcomes will always be of interest and importance, it is highly acknowledged across all areas of event literature that a more holistic understanding of outcomes is a more suitable approach (Getz, 2008; Page and Connell, 2009; Richards and Palmer, 2010; Mair and Whitford, 2013). This both prevents overstating the positive economic contributions events can provide, but also encourages focus on socio-cultural benefits of events.

Interestingly, Andriotis and Vaughan (2003) found that residents were sometimes willing to sacrifice some economic benefits for socio-cultural.

Socio-culture and community benefits demonstrate the quality of events to reflect the true value of the event for society (Carneiro et al 2018; Wood, 2017). Social impact can be recognised as changes to social or cultural conditions, as a result of an activity programme or project. These changes can be both positive and negative and will affect the quality of life of the residents of a place (Carneiro et al, 2018; Duffy and Mair, 2018; Eusebio et al, 2016; Fredline et al 2003; Wise et al., 2017).

Research has identified several areas where events can have a positive social impact on the host community:

- Increased sense of community, belonging cohesion and identity (Wise and Harris, 2016; Gursoy, 2004; Arcodia and Whitford, 2007; Duffy and Mair, 2018)
- Renewed pride and loyalty to their city or region (Richards and Wilson, 2004; Van der Berg, 2012; Duffy and Mair, 2018; Deery and Jago, 2010)
- Improved engagement, identity, shared values and ownership (Duffy and Mair, 2018; Ulrich, 1998; Gursoy and Kendall, 2006; Bargiran and Kugun, 2016; van Winkle and Woosham, 2014)

When considering socio-cultural benefits of events, several authors have also used social capital as an underpinning framework to develop “a deeper understanding of the socio-cultural impacts of events on communities” (Sharpley and Stone, 2012: 356). Many authors have illustrated how events have the potential to foster and strengthen social capital (Misener and Mason, 2006; Foley, 2011; Misener, 2013). For example, in her chapter focused on sport events, Misener (2013) first identifies qualities of events that could help develop social capital:

- Encourage cooperative and supportive behaviours within a group
- Allow all members of society to participate and acquire new skills
- Build more extensive, boundary-spanning and resource-rich networks
- Foster new norms and values

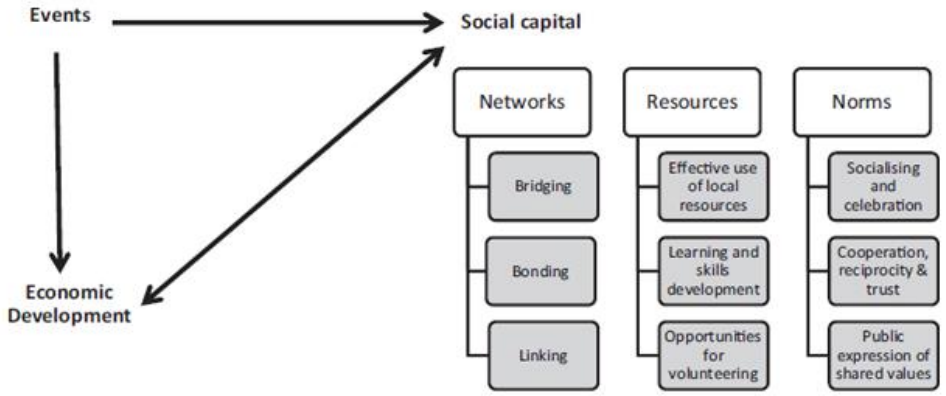
She then highlights four strategies to be used during events to develop social capital:

- Enhance the ability of individuals
- Make community organisations stronger
- Build links among individuals
- Build links among organisations

Interestingly, several sources of literature have suggested the important role of events in developing social capital, with some mentioning the opportunity to socialise, development of community resources, linking of new networks, and opportunity to develop common values and purpose (Acordia and Whitford, 2006; Chaplin, 2006; Misener and Mason, 2006; Schulenkorf, 2009; Schulenkorf et al., 2011). However, the evidence is questionable and limited (Duffy and Mair, 2018). This may be down to what Portes (1998: 19) refers to as "logical circularity" in his critique of Putnam' s (1995) work. Put simply, "the components that determine the existence of social capital are also used to measure its outcomes" (Duffy and Mair, 2018: 97). Additionally, as social capital is concerned with the relationships and interactions between people in a community it is more likely that the extent to which events can encourage and build social capital will be unique to each community as well as the nature of the event. When high, social capital can come with many positive outcomes such as, strong sense of community where the group is empowered, supported and unified (Ooi, 2014). Putnam (1995 & 2000) also concludes that high social capital has greater significance in terms of human wellbeing, health, and happiness. As Duffy and Mair (2018) highlight events and festivals are important for overall social identity and cohesion (social capital) (Figure 2.6).

Figure 2.6

Duffy and Mair (2018: 101) Social Capital and Events Conceptual Framework



The illustration demonstrates that events develop social capital. Interestingly, there is a two-way relationship between economic development and social capital, but not between events and the other components. Drawing on the literature above there are similarities between place image and attachment and social environment characteristics that lead to positive tourism/event attitudes and pro-tourism/event behaviours. Also demonstrated is the overlapping characteristics identified as place image and attachment as well as social capital. In his recent perspective article, Stylidis (2020: 228) summarises the connection further:

"Determining residents' [place] image is invaluable for a range of reasons:

a) Their image assists in delineating a place's strengths and weaknesses, contributing to strategic planning that enhances residents' quality of life;

b) Image is strongly linked to community satisfaction, sense of pride, sense of place and community, and place attachment, all being vital for the viability of a place;

c) Residents themselves are often acting as 'tourists' in their own area, visiting attractions and events, or accompanying their friends and relatives in their visits. In such visits locals often spend more than usual;

d) Local residents are part of the destination image itself, determining through their interactions with tourists, the latter's cultural experience and subsequent destination image formation;

e) They are also active information providers, serving as 'destination ambassadors', especially for their friends and relatives, significantly affecting others' intention to visit a destination;

f) Some locals further immerse into social media platforms offering local expertise, contributing to value co-creation and destination differentiation;

g) Residents' [place] image is known to affect their level of support for tourism development, thereby influencing tourism planning; and

h) Through their capacity as tourism employees, they play a key role in visitors' perceived quality of the destination."

Therefore, this study argues that there is not a one-way relationship between events and the community but a two-way relationship. Especially signature and community level events require already established positive sense of place and social cohesion (capital) to be successful and sustainable.

The two-way relationship between events and community (image, identity and cohesion), especially the role of social capital in running a successful event, is important as it may firstly, hinder an event successfully achieving its outcomes and secondly, lead to social capital to lose efficiency, where obligations or expectations are exhausted and turned into resentment. Schulenkorf et al. (2011) allude to this when discussing the tensions between certain groups in the community and the stresses associated with managing the event between them. Similarly, Duffy and Mair (2018) highlighted negative outcomes that may be associated with social capital, such as social exclusion and divisions between groups in the community. Within this is the idea of identity, which is "articulated through the relationship between belonging, recognition, or identification and difference" (Hetherington, 1998: 15). There is the possibility that some may feel excluded from the community and/or place; or competition and disagreement over the values or space may emerge, causing an 'us and them' mentality (Fukuyama, 1995; Hawthorne, 2006; Duffy and Mair, 2018). However, this has rarely been acknowledged in the literature (Duffy and Mair, 2018). Other examples of negative social impact have also been identified, from short term stresses such as crowds, noise and abuse of alcohol and drugs to longer term consequences such as environmental costs, commodification, and exploitation of culture (Arcodia and Whitford, 2007; Deery and Jago, 2010; Getz and Page, 2016). Moreover, as Tosun (2002) demonstrated festivals and events can seriously disrupt the everyday routines and privacy of residents. Deery and Jago (2010) have noted that although residents are willing to accept these short-term irritations because of the

multiple benefits, the long-term support can significantly decrease when faced with issues surrounding events.

2.6 Summary

This chapter explored the existing research and literature to guide the process and position the research carried out by the study. Firstly, ecological literature provided the context in which to set the study, this also informed the methodology and research design which is explained in more detail in the next chapter. Secondly, the theory of Salutogenesis is presented as a more appropriate lens through which to consider the health and wellbeing benefits of physical activity. Thirdly, ecology of physical activity engagement was presented, and the concept of physical literacy was introduced to better consider the holistic and complex nature of physical activity. Finally, literature and research spanning sport tourism events, destination branding, and resident's sense of place were explored to position the wider role of these events and engagement for the benefits of the county of Pembrokeshire. The next chapter presents the methodology and research design of the study. Additionally, the chapter explains the use of several quantitative and qualitative methods.

3. Methodology

The purpose of this chapter is to provide a rationale for the methodology aligning with the aims and research questions of the study. A methodology was needed that was able to consider participants experiences of MPSEs in Pembrokeshire, while also respecting the complexity of these embodied experiences within a larger community. The chapter firstly explains the epistemological position of the study taking into consideration the underpinning theory of ecology. Secondly, the chapter presents ethnography as the methodology aligning with the epistemological standing. Ethnography informs all phases and data generation processes. Subsequently, research phases and the methods they employed are discussed. Ethical considerations are considered through separate phases due to the different methods and participants involved. Additionally, the progress and the experiences of the data generation process is shared through the phases, providing my perspective. Finally, the chapter describes the data analysis process for the quantitative and qualitative data.

3.1 Social Phenomenology

The alignment through a research study is vital (Smith, 2018; Creswell, 2015). Therefore, my own ontological and epistemological standing needed to be considered. This position helps determine how the phenomenon in question is explored. Willig (2001) presents two questions to help consider knowledge (‘*what can we know?’ and ‘how can we know?’*). In answering these questions begins to guide the methodology and research design of the study (Whaley and Krane, 2011).

There are traditional polarised views when considering the ontological perspective. On one side is the view of realism towards a positivist epistemology. Ashworth (2008) explains at this side of the spectrum the world can only be explained by phenomena that are observable and agreeable to testing. This testing is generalisable and creates laws in order to control and predict (Gula and Lincoln (1994). Quantitative methods aligns with this ontological perspective. Whereas relativism lies on the other side of the spectrum in this traditional view. Here, epistemological standpoints such as post-positivism, interpretivism or constructivism align. The belief of social reality here is “humanly constructed and shaped in ways that make it fluid and multifaceted”

(Sprakes and Smith, 2014: 11). Unlike realism, the intention is not to generalise about the social world, instead it is concerned with the complexity of it. As authors have stated, experience, choice, values and moral judgement – everything that makes an individual human – must not be ignored. They can be powerful determinants on outcomes, results and products of research (Nesfield-Cookson, 1987; Roszack, 1972; Hampden-Turner, 1970). Therefore, qualitative data that can fully consider explanations of human behaviour aligns here.

The idea that these ontological views are in opposition is outdated (Creswell, 2014; Klotz and Lynch, 2007). Instead, Finlay (2009: 17) calls for a "need to go beyond lines drawn by modernism and post modernism, embracing both and neither". This would then provide an ontology and methodology that researchers from practical and complex fields can use a mixed method approach to try and produce some rational structure as well as recognising the intricacies of reality. Many researchers have also agreed that there is a need for more methodological designs that bridge the gap between the two paradigms (Denzin and Lincoln, 2008; Johnson and Onwuegbuzie, 2004). Using a mixed method approach, as adopted in this study, helped to overcome many of the weakness and biases of the two paradigms and highlight the connections and how they can complement each other (Onwuegbuzie and Leech, 2005; Brannen, 2005).

Phenomenology is concerned with the lived experience of the world (Husserl, 1970/1936; Merleau-Ponty, 1995/1945). Embracing "embodied knowing" (Galvin and Todres, 2012: 2) and "experiential meanings" (Finlay, 2009: 6) to provide rich, fresh and complex understandings of the phenomenon as it is lived. This is not a simple task, there have been many discussions and debates as to how to carry out phenomenological research in practice (Norlyk and Harder, 2010; Sprakes and Smith, 2014). The central aim of phenomenological research is to "reveal meaning and to understand how that meaning is connected to a person's life experience" (Stringer, 2004: 25).

Although phenomenology is concerned with the experience of the individual and how a person constructs meaning, social phenomenology considers the role of relationship, connection and the intersubjective dimension of meaning (Schutz, 1967; Gadamer, 1990; Van Manan, 1990). Drawing on the work of Merleau-Ponty (1945) we are able to

understand that experiences are “dually owned” (Baldwin, 2007: 135). Influenced by these authors I consider how meaning is made by individuals and collectively through the experience of taking part in MPSEs.

3.2 Ethnography as methodology

Ethnographic inquiry describes and interprets cultural behaviour (Wolcott, 1987: 43) and is equipped to “respect the complexity of the social world” (O’Reilly, 2012: 7). Ethnography has been present in research for the last 100 years (Gobo, 2008; Harrison, 2018). Playing an essential role in Anthropology in the late 19th to early 20th century, ethnography was used to understand foreign and unknown (normally distant and exotic) lands and people in comparison to the anthropologist’s home (Atkinson et al, 2001). Towards the mid-20th century, the use of ethnography saw a growth in sociology research (Deegan, 2001), from a focus on small communities in cities, towns and rural settings to urban settings closer to ‘home’ as well as people within them (Gobo, 2008). There have been tensions, setbacks, and issues raised throughout the decades (Van Maanen, 2011; Harrison, 2018). For example, several authors have discussed the blurring or reduction of what constitutes ethnographic research practices because of the connection to “the routine ways in which people make sense of the everyday world” (Hammersley and Atkinson, 1995: 2). However, it is “not just a matter of common sense” (Forsythe, 1999: 143) and as Harrison (2018: 4) states “it involves training… reflection and accountability”. However, most authors celebrate the work of early generation ethnographers (Hammersley and Atkinson, 1995) and the continued display of methodological versatility as it has been adopted and applied to many diverse fields of research (O’Reilly, 2012). These uses have ranged from identity (McIlroy and Storbeck, 2011); social justice (Garthwaite, 2016); education (Simmons and Thompson, 2011) to name a few. Specifically, the concern of this study - its use in sport and exercise cultures (Atkinson, 2009a; Atkinson, 2010; Finley, 2010; Thorpe, 2011).

The complexity of ethnography has led to many nuanced definitions:

- “the task of describing a particular culture” (Spradley and McCurdy, 1972: 3);
- “the textual rendering of social worlds” (Abu-Lunghod, 2000: 261);
- “a theory of description” (Nader, 2011: 211);

- “the art and science of describing a human group- its institutions, interpersonal behaviours, material productions and beliefs” (Angrosino, 2007: 14);
- “a written representation of a culture (or selected aspects of a culture)” and “the study and representation of culture as used by particular people, in particular places, at particular times” (Van Maanen, 2011: 1 and 155 respectively).

The definition examples above present two clear themes that constitute ethnography. The first is description and analysis of social places. Ethnography provides a methodology for rich cultural data to better understand the workings and interactions of the “human group” (Angrosino, 2007: 122; Spradley and McCurdy, 1972). The second theme is the textual representation of this information. This again show the complexity of the methodology. Additionally, these definitions present the importance of the process – from the study and analysis to descriptions and written representation.

Importantly, ethnographic studies provide opportunities to present contextual understandings of many individual’s perspectives and everyday lived experiences (Krane and Baird, 2005; Atkinson, 2016). Ethnographic studies in sports and physical activity have identified this to be limitations of structured qualitative methods such as questionnaires, semi-structured interviews (Champ et al. 2020; Gough, 2016).

Accordingly, researchers have also tried to provide guidance as to how ethnography should be carried out (Denzin and Lincoln, 2011). Hammersley and Atkinson (1995) warn against an ‘ethnography manual’ suggesting it would ignore the complexity of the research or it’s deep and diverse roots. Van Maanen (2011: 175) takes the point further by suggesting that the “inquisitive and adventurous” nature of ethnography makes it impossible to narrow down to a logical set of instructions. Despite the fact that there are differing and sometimes opposing opinions (Harrison, 2018), there are several commonalities:

- Concerned with culture (Spradley and McCurdy, 1972; Wolcott, 1987; Hammersley and Atkinson, 1995; Van Maanen, 2011; Harrison, 2018).

- To understand experiences of the culture from the "insider's view point" (Spradley and McCurdy, 1972: 4; Denzin, 1997; Angrosino, 2007; O'Reilly, 2012).
- Using a multiple method approach (particularly, but not exclusively, participant observation) (Spradley, 1980; O'Reilly, 2012; Harrison, 2018).
- Producing rich descriptions of people and culture, primarily in written forms (Denzin, 1997; Van Mannen, 2011; Hammersley and Atkinson, 1995).

According to Spradley (1980) a *topic-oriented* approach focuses on certain aspects of social communities within more complex and globally interconnected societies. Ethnographies have been widely used in the field of sport and physical activity to present the lived experiences of subcultures and certain identities (Atkinson, 2016). For example, Townsend and Cushion (2021) explores coaching in disability sport; MacPhail and Kirk (2006) look at experiences of young people in the specialisation phase of sport; Shipway and Holloway (2016) uses their ethnographic notes to explore the desire for health and wellbeing in distance runner identity. This study is concerned with a group of people in Pembrokeshire whose common connection is MPSEs. When carrying out a 'topic-oriented' approach I needed to acknowledge that I was dealing with "specific dimensions of social life and/or subcultures that [are] situated within larger societal contexts" (Harrison, 2018: 19). By Spradley and McCurdy's (1972:4) definition, this is a *microculture:*

> "within larger societies, members of a microculture will usually share much of what they know with everyone in the greater society but will possess a special cultural knowledge that is unique to the subgroup… it is this shared knowledge that makes up their microculture and that can serve as the basis for ethnographic study."

In this study it was therefore vital to consider both the microculture and the wider societal contexts. Additionally, authors have also identified ethnographic projects that include "translocal cultural groupings" (Harrison, 2018: 53; Amit, 2000) and have been observed within projects such as Knight (2011). This understanding helps to create a diamond-like view of the phenomenon – demonstrating the complexity, different and at times contradictory ways in which actors interact with the culture and social

structures. In this study, the focus was on Pembrokeshire participants in MPSEs (the microculture), and the community's (wider society) engagement with, support, or disapproval of the events. However, it was important not to ignore that because of these events, Pembrokeshire has many visitors to the area. These individuals would have commonalities with the wider community and also, as MPSE participants, would have similarities with the microculture (trans-local). On the other hand, it was realistic to expect that these individuals could influence interactions, from encouraging pride to threaten their sense of place. Therefore, the ethnographic approach in this study needed to try and consider all these details to create the full picture. Moreover, it was not just visitors that created separate groups or 'others', but within the community itself there were residents that were not involved in MPSEs and in several cases examples of opposition views to MPSEs from these residents were evident. Therefore, the position I established through the data generation process was important to actively consider.

Whether using the words 'emic/ etic' or 'insider/ outsider', authors have discussed the strengths and weaknesses of each position (Markee, 2013; Berger, 2015; Kerr and Strum, 2019). I was not a part of the community; not knowing anyone within the community would place me as an outsider (Yin, 2016). As an outside, I had to deal with access issues, but could better exercise objectivity (Kerstetter, 2012; Paechter, 2013). However, I had experience of taking part in events, and held a cultural insider perspective knowing intricate details of taking part (Thorpe and Olive, 2016). Although I started as an outsider, because of the event experiences and physical ability I sometimes held a more 'insider' position at times further into the research – for example being invited to train with clubs, run with friendship groups and help at events. This echo's Adler and Adler (1987) argument that the positions should be better understood as a continuum rather than polarised. Moreover, Fletcher (2014: 244) suggests that "one's insider or outsider status is never certain; rather it is filled with dissonance and ambiguity, is an ongoing performance and is always in a state of flux". This was especially true when I introduced myself to member of the community. In some cases (with those that take part in MPSE physical activity) I shared my own experiences. However, with residents that had issue with the events these experiences were not shared to encourage a better relationship with those interviewed. It is

common understanding in qualitative literature that it is impossible to be fully insider or fully outsider (Coombs and Osborne, 2018; Dwyer and Buckle, 2009; Kerstetter, 2012). In two sporting settings, Kerr and Strum (2019: 1138) states “such positionings are highly content-dependent and can often include fluctuations within the same space and setting”. Therefore, it was vital that through the research process I was actively aware of the position I was in in each space and setting.

3.3 Reflexivity

Before moving onto the detail of the research design the above positions demonstrate the complexity of the my role as a researcher and participant observer within the research. Reflexivity is well established as an integral part of qualitative research (Hammersley and Atkinson, 2007; Denzin and Lincoln, 2011). Positivism would attempt to distance or even eliminate the effects of the researcher on the data by using standardisations and protocol procedures. However, the concept of reflexivity acknowledges that research cannot be carried out “insulated from the wider society” or from the personal characteristics and viewpoint of the researcher (Hammersley and Atkinson, 2007: 15). It allows for the consideration of socio-historical locations and the values and interests aligned with them (Hammersley and Atkinson, 2007). Authors have discussed the use of reflexivity to deal with ethical dilemmas, interpretation, researcher voice and bias (Sprakes, 2002; Van Maanen, 1988; Sprakes, 2020). Although an important use when done well reflexivity has the potential to facilitate greater insights of the experiences (Finlay and Gough, 2003). This also links to what many authors label *researcher-as-instrument* (Hammersley and Atkinson, 1995; Creswell, 2009; Denzin and Lincoln, 2018). Here, my own knowledge, past experiences, gender, and other personal characteristics can influence the generation of data (Yoon and Uliassi, 2022). Townsend and Cushion (2021) provide a considered and honest example of rigorous self-awareness reflexive account of their role as a sports coach and researcher. Drawing on their guidance I would like to present a few examples of my own reflexive practice. Considering “accessing, negotiating and representing socially significant patterns of culture” present in the MPSE phenomenon in Pembrokeshire.

Firstly, the issue of access. I was a complete outsider when it came to participation in Pembrokeshire; I didn’t live there, and hadn’t taken part in any events in the area. What was invaluable was the first connections I was able to make through my friend.

She invited me to her club, when spectating certain events at the beginning she would introduce me to people walking past, she is well known in the south of the county and knows many different people that opened doors for me to carry out the research. For example, I was introduced as “This is Kate, she is Ellie’s friend” multiple times throughout the research process even when Ellie wasn’t present. As “Ellie’s friend” I was welcomed quickly people were happy to spend time talking to me; would say hi if they saw me at events and invite me to social gatherings after events. Ellie ‘vouched’ for me. Using this social/cultural capital (Bourdieu, 1896) allowed further connections to be made through the snowball sampling method because barriers were removed as “Ellie’s friend”.

Negotiating certain aspects of the data generation process was influenced by my gender. Although there were some examples of sexist reactions and comments from some of the male participants being a woman helped enormously when interviewing female participants. During the long-form interviews tangents and different topics were encouraged. The women I interviewed were open and shared important female perspectives which I was able to follow and ask more about. Several of these participants commented similarly to Louise, “it’s actually helpful to talk this through with another woman, I don’t think I thought of how my responsibilities at home can influence my motivation”.

Presenting these patterns and findings became the most challenging and heightened the importance of reflexivity. My past experience in community charity events meant a naturally enjoyed the smaller community events slightly more than the bigger commercial events. I was inspired by the work ethic of the community working for free to make the races an outstanding experience for the participants and visitors to their villages. There were some aspects of the bigger events that I did not enjoy where the some of the organisers talked down to volunteers and other small issues I noticed from my observations. I had not shared this with any of my supervisors before writing the first draft of the creative nonfiction. One supervisor commented that even though it was subtle it was clear that I favoured the smaller events over the bigger events. Although it was important to include all issues and not just demonstrate the positives it was vital to remove this particular bias. Conversations with my supervisor helped share key information related to the research objectives.

3.4 Research Design

The research design is built on three distinct sequential and complementarity phases that each link to the objectives presented in the Introduction Chapter:

Aim: The aim of the study is to explore a salute-ecological perspective of mass participation sport events in Pembrokeshire.

Objectives:

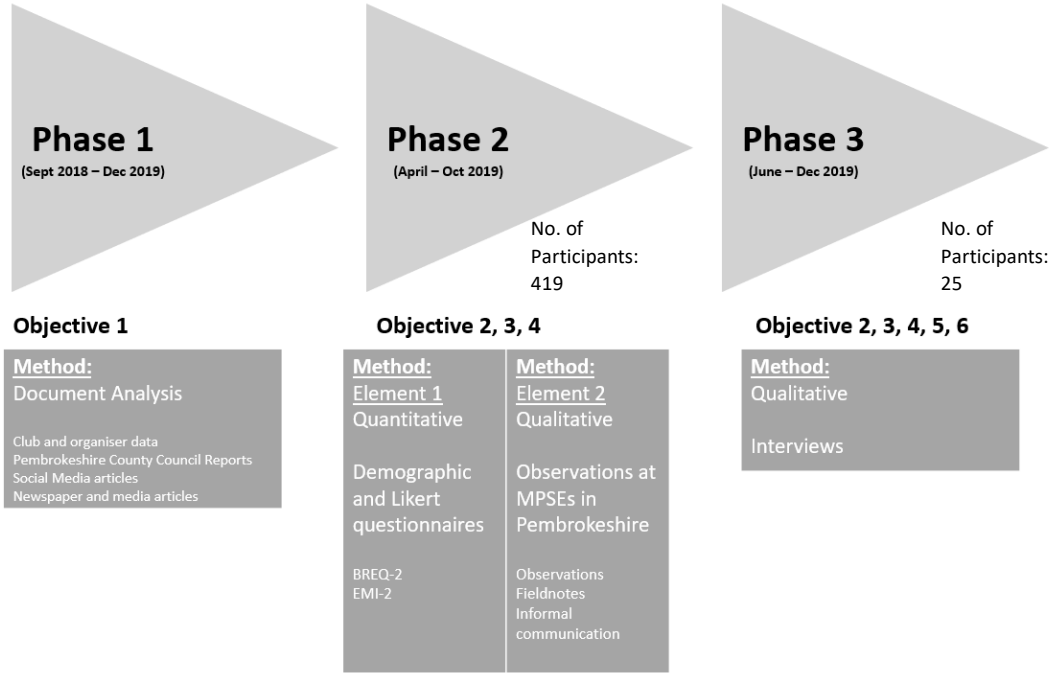
1. Investigate the growth of MPSE specifically in Pembrokeshire.
2. Classify demographic and motivational characteristics of those that take part in MPSEs.
3. Evidence individual experiences of MPSE phenomenon in Pembrokeshire.
4. Explore perceived health and wellbeing benefits for participants.
5. Identify multilevel environments and resources that have influenced continued physical activity in Pembrokeshire.
6. Explore how these environments and resources may interact for continued physical activity supporting physical literacy.

These objectives lead to the research questions:

1. What demographic characteristics and motivations inform MPSE population?
2. What role has the MPSE phenomenon had on health and wellbeing of participants in Pembrokeshire?
3. How do environments and resources in Pembrokeshire contribute to the continued engagement in physical activity and supporting physical literacy?

Figure 3.1

Phases and Methods of Research Design



As Vors and Bourcier (2022: 126) state "the interest of MMR lies in the multiple articulations it allows". The sequential phases all involve a qualitative element that aligns to different objectives (figure 3.1). Phase 2 involved a concurrent parallel design where ethnographic fieldwork took place at the same time as the quantitative survey. Although the methods at phase 2 were not related to each other both these data informed the interview process and questions of Phase 3. This allowed me to follow key motivations seen from the quantitative results when interviewing the participants on their own reasons for engagement. As discussed in the introduction chapter, at present the MPSE literature looks at engagement in specific and individual MPSEs. This does not fully reflect the experience of MPSE engagement where individuals are more likely to take part in multiple events across a season. Following a sequential mixed method design allows the quantitative data to add to the current MPSE literature and the qualitative data in this study to further understanding of motivation and reasons for engagement in MPSE. Then, in phase 3, the participants gave rich detail giving further insights into engagement practices of participants. As the objectives suggest this study was concerned with giving a whole-picture of the MPSE phenomenon in Pembrokeshire. When framing phenomenological mixed methods research, Martiny, Toro and Hoffding (2021) uses labels from Verkatesh et al. (2013). Specifically for this

study, mixed method approach was used to provide a *holistic* understanding of the MPSE phenomenon in Pembrokeshire. In a complementarity approach where the quantitative data provided a more general picture of motivations, and the qualitative data (specifically the interview data) was used to explore the results further.

3.4.1 Participant Sampling

The study used different sampling techniques at different phases. In Phase 1 the sampling process acted as a step in the documentary analysis and is therefore discussed below. Both elements of phase 2 used convenience sampling. This method refers to those participants of the MPSE population that are easily accessible to the me (Given, 2008). The participants agreed to take part as they stood in line waiting to register for specific events. Convenience sampling is a non-probability sampling method that is sometimes referred to as 'accidental sampling' (Etikan et al., 2016). This is a more accurate understanding reflected in its use for element 2 of phase 2 – observations. As explained by Etikan et al. (2016: 2), participants may be "selected in the sample simply as they just happen to be situated, spatially… near to where I was conducting data generation. Ecological data are often taken using convenience sampling, here data are collected along roads, trails". In this study, observations were carried out while walking around the events in the public space in Pembrokeshire, observations were made of individuals in the vicinity, more details below.

Phase three used both purposeful and snowball sampling. Patton (1990) describes purposeful sampling with additional subtypes. Specifically for this study, *criterion-based sampling* was used where the participants are included not just for agreeing to take part, but they also matched certain criteria, the participants:

- lived in Pembrokeshire
- participated in MPSEs (of any variety)
- participated for an extended period of time (at least three years) – this criterion was chosen to identify individuals that participated in MPSE physical activity as a habitual practice.

Snowball sampling (Monaghan, 2001; Thorpe, 2012) was used because as Holloway (1997: 142) states "sampling is not fixed in advance but is an ongoing process guided by emerging ideas". As I met more participants through interviewing, observing events and clubs, I was introduced to more participants that fit the criteria. For example,

many people interviewed suggest another person that would be good to talk to as another participant. Thorpe's (2012) study also demonstrates how this sampling technique aligns with an ethnographic approach.

3.4.2 Ethical Considerations

Ethical considerations were made throughout the study both generally and specifically within each method used. I had the responsibility to ensure the information given by the participants and participants rights are protected through the process of study. It is essential that all research follows ethical rules, obligations and standards set by ethical, legal and professional frameworks (UWTSD, 2017). As a student at University of Wales Trinity Saint David (UWTSD), I made sure I adhered to standards set by the university's 'Research, ethics and integrity code of practice' document (UWTSD, 2017). Alongside this, the study is based within, and explores aspects of sociology and therefore must comply with the guidelines set out by British Sociological Association (BSA, 2017a). The information provided by participants also covered aspects of psychology and therefore I needed to consider the ethical standards set by British Psychological Society (BPS, 2014). Further considerations are explained in the relevant phases.

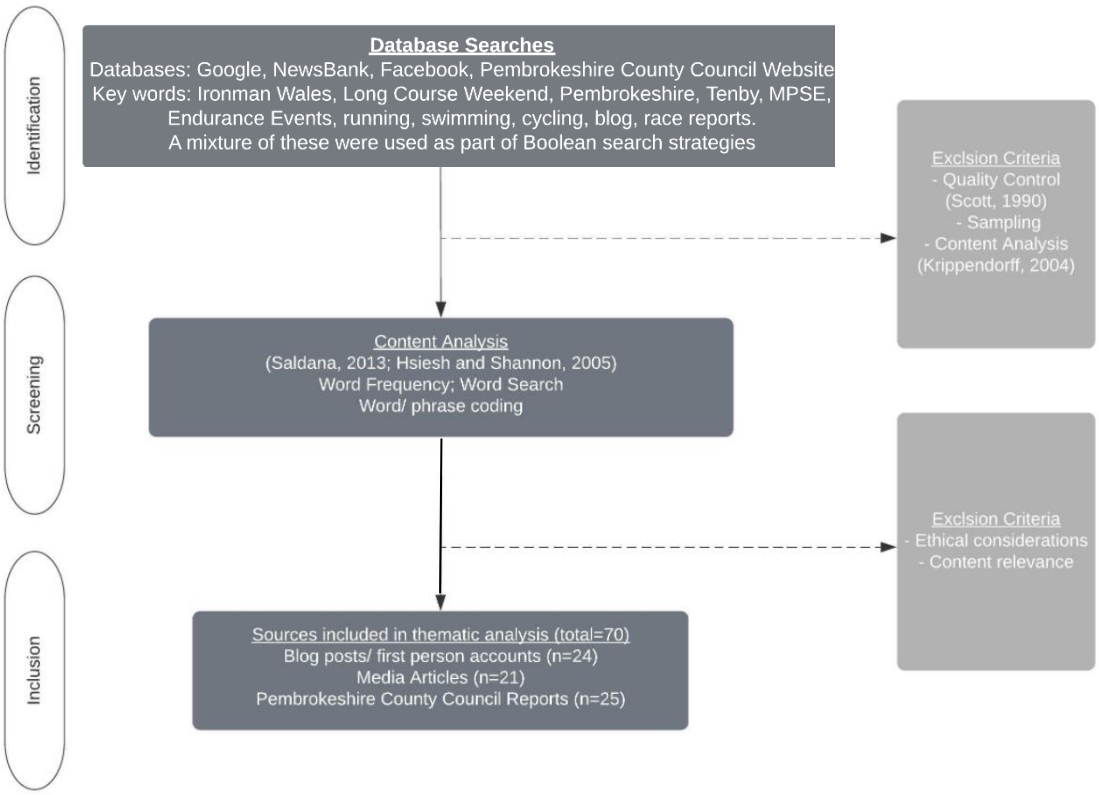
3.5 Phase 1: Evidencing the phenomenon

Phase one was concerned with the growth and development of the MPSE phenomenon in Pembrokeshire. As the Introduction Chapter demonstrated MPSEs have been a part of life in Pembrokeshire for at least the last ten years. The first Ironman Wales event was in September 2010 and has attracted growing public interest since the inaugural event. Additionally, the increased participation of Pembrokeshire residents and international reputation of the events in the area has created a phenomenon that needed to be explored. Phase one used a document analysis of multiple data sources to create a broad, overall picture of the phenomenon (Bailey, 1994; Payne and Payne, 2004; Bowen, 2009). More specifically, this study was concerned with the lived experience and thus, where possible, first-person accounts were included.

According to Hill (1993) these sources used in document analysis fall under three basic categories: personal (first person accounts, such as blogs, social media posts, journals and diaries); public (newspaper and magazine articles, flyers, books); and official documents (agency and organisation records and annual reports). In many document analysis' certain sources are specified as part of their inclusion criteria. Due to the scope of this phenomenon, there were no source-specific inclusion criteria in the first stage of analysis, exclusion criteria were then introduced at the second stage (Figure 3.2).

Figure 3.2

Process and criteria of Document Analysis



Although the quantity of documents is important to help with triangulation of data, Bowen (2009) and Grix (2001) call for a focus on the quality of the sources. It is essential to establish the meaning of the document and how it contributes to the study. Deliberate thought was given to the origin, purpose, and original audience of the documents (Grix, 2001). Therefore, the first point of analysis is context and quality of the document.

Scott (1990) provides four criteria for quality control of the documents:

- authenticity (originality of the document and genuine authorship)
- credibility (sincerity of the point of new of the author)
- representativeness (is it typical of such accounts)
- meaning (the text must be clear and comprehensible)

In the identification stage of the document analysis purposive sampling method was also used based on topic and title of the document to select appropriate sources. Used in the same fashion as participant purposive sampling Flick (2018) states that a criterion is used that all sources included must meet. In this phase, search terms were used (Figure 3.2). Krippendorff (2004) provide six features of text that help to inform content analysis. The features discuss the communication and relationship between the writer and the reader considering the context and meanings. Therefore, purpose of the text was used as inclusion or exclusion criteria. For example, adverts for the events came up in the identification search process, and although examined were excluded due to the use being to attract participants to the event. On the other hand, race reports written by participants were found that described their experience at the event. From a phenomenological perspective these were more relevant to the study. Moreover, media sources such as newspaper articles provide experience examples in the context of interviews with the public and descriptions of the event and the day. Additionally, reports created by county council employees show the extent to which these events are considered. Not just for participants closely connected to the events but also the impact of the events on a policy and society level. These considerations were used in the identification and screening stages of the analysis process.

In the second stage of analysis (screening) word frequency and word searches were used as manifest level of coding and analysis (Potter and Levine-Donnerstein, 1999; Hsieh and Shannon, 2005). At this level of analysis, it does not go beyond what has been said (Sparkes and Smith, 2014). The aim was to quantify and identify certain words and explore usage of codes rather than infer meaning (Hsieh and Shannon, 2005). This provided secondary exclusion criteria. For example, in many Council Reports the word ‘Ironman’ was used in review of the year and just listed as an item. Similarly, ‘Pembrokeshire’, ‘Tenby’, and ‘Ironman’ were listed in local newspapers

while explaining event procedures like road closures. Although important the information was listed but not used as part of further analysis.

Additionally, ethical considerations provided another exclusion criterion. Previously documentary analysis has been straightforward – sources were either in the public or private domains and issues of consent were clear. As ethics codes have made clear – fully informed consent is the foundational aspect of social research (BPS, 2014; BSA, 2017a). However, since the creation and extensive use of the internet ethical dilemmas have to be taken into consideration when using "internet-mediated research" (BPS, 2017: i; BSA, 2017; Sixsmith and Murry, 2001; King, 1996). The internet is a place of "new, messy and often confusing definitions of private and public" (BSA, 2017b: 3). The British Psychological Society states that "valid consent should be obtained where it cannot be reasonably argued that online data can be considered 'in the public domain'" (BPS, 2017: 9). Therefore, where passwords and memberships were required to access the information these were considered to be in the private domain and excluded from analysis.

However, this stage of analysis was helpful in identifying themes to be explored in the final stage of analysis. The frequency of certain words started to demonstrate patterns that needed further consideration (Saldana, 2013). For example, the word 'supporter/supporters' were counted 100 times in the blogs and race reports alone. Once the inclusion and exclusion criteria were set, analysis moved into latent level (Hsieh and Shannon, 2005) and then thematic analysis (Braun and Clarke, 2006).

Thematic analysis was used as the final stage of this analysis process to benefit from the flexibility, interpretive and rich nature of the approach (Braun and Clarke, 2006; 2013). Also, this data was used as part of the wider analysis process with other data sets such as the observations and interviews in the later phases (Braun and Clarke, 2006; Sprakes and Smith, 2014). Data from this phase was used alongside observation data to create the creative nonfiction presented in Chapter Two (Eventful Weekend). As the thematic analysis process included all qualitative data sets the process will be discussed at the end of the chapter and so too, the use of NVIVO.

3.6 Phase 2: Motivation and the Events

Phase two was carried out through the 2019 MPSE season and followed a concurrent mixed methods research design. Through a full year there are several seasons of events that the same participants may take part in. For example, through the winter months cross country events are held in and around the county. Through late winter/ early spring the events start to move to longer distance running events as well as indoor-swim triathlons or duathlons, before the outdoor-swim triathlons start as the water starts to get warmer. Although these winter month events have participants and spectators, the most popular events occur between spring and mid-autumn. In the case of this study, and the specific year, the data for this phase was collected between April and October 2019.

3.6.1 Participant Motivation

Although all phases and methods were used collectively to answer the three research questions, the use of the quantitative methods in this phase were focused specifically on the first research question:

'What demographic characteristics and motivations inform the participants of MPSEs in Pembrokeshire?'

Due to the sub-research questions and demographic characteristics being explored by the survey two validated questionnaires and a seven-question demographic questionnaire were used. As presented in the Introduction Chapter much of the literature in MPSEs has focused on the motivation of participants (Funk et al., 2011; Bennet et al., 2007; Buning and Walker, 2016; Coleman and Sebire, 2016; Willem et al., 2017). As the literature field is still in relatively early stages it was seen as important for this study to provide further motivation data, specifically, new data based around Welsh events. Several motivation questionnaires were considered for this study (Masters and Ogles et al., 1993; Ryan et al., 1997; Molanorouzi, Khoo and Morris, 2014; Mullan, Markland and Ingdledew, 1997; Markland and Ingdledew, 1997; Strommer, Ingledew and Markland, 2015). Many of these were deemed unsuitable simply due to length of full questionnaire (number of items) and relevance of questions asked. Consideration was also given to those tools that had been used in previous MPSE literature.

The Behaviour Regulation in Exercise Questionnaire (BREQ-2) (Mullan et al., 1997; Markland and Toblin, 2004) has been used internationally showing good psychometric measurements (Wilson et al., 2002; Markland and Toblin, 2004; Moustaka et al., 2010; Liu et al., 2015; Farmanbar et al., 2011). As one of the most widely cited motivation measures it has also been used in MPSE literature (Coleman and Sebire, 2016; Willem et al., 2017).

The BREQ-2 measures both quality and quantity of motivation and aims to answer the subquestion '*How are the participants motivated?*'. The authors (Mullan et al., 1997; Marland and Toblin, 2004) base the questions on five different types of motivation under the Self Determination Theory (SDT) (Ryan and Deci, 2000 & 2008). The 19 questions are answered by a 5-point Likert scale of 0 (*not true for me*) to 4 (*very true for me*) (Markland et al., 2004) (appendix 6). The questions are split between the subscales for *Amotivation* (Q5, Q9, Q12, Q19); *External Regulation* (Q1, Q6, Q11, Q16); *Introjected Regulation* (Q7, Q7, Q13); *Identified Regulation* (Q3, Q8, Q14, Q17); *Intrinsic Motivation* (Q4, Q10, Q15, Q18).

The Exercise Motivations Inventory (EMI-2) (Markland and Ingledew, 1997, Appendix 7) has been used in many different research contexts including sport and experience (Ingledew, Markland and Ferguson, 2009; Kilpatrick et al., 2005; Maltby and Day, 2001) and specifically previous MPSE studies (Funk et al., 2011; Crofts et al., 2012). The EMI-2 has 52 questions across 14 subscales. The questions are answered using a 6-point Likert Scale of 0 (*not true for me*) to 5 (*very true for me*). The use of the EMI-2 within MPSE literature has been altered each time. Funk et al. (2011) excluded two elements of the EMI-2. As they did not provide sufficient reasons for this, based in literature, this study will use the full questionnaire. Crofts et al. (2012) also excluded and combined certain subscales due to the practicality of length of survey given the other questionnaires involved in their study. This questionnaire was specifically used for the sub question '*Why are the participants motivated?*'.

It was therefore vital to carry out a piloting process to assess both the functionality and practicality of completing the questionnaires. The pilot studies were carried out in September 2018 at two events based in a local city (outside of Pembrokeshire) which would not be included in data generation process in 2019. The piloting process was not

only concerned with the length of time taken to answer each questionnaire, but also the process of the survey including additional demographic questions, how participants were accessed, and how the participants accessed the questionnaires.

Working closely with an organiser of MPSEs in the area it was decided that event registration (normally held the evening before or hours before the event) was the best time to access the participants. During the piloting process 10 of the participants were given a paper copy with clipboard and pen and another 10 participants were given a tablet with a digital-interactive copy of the questionnaire. It was found that tablet access was far more appropriate based on length of time taken to complete the questionnaire. Amazon Fire 7 tablets were used as an inexpensive tablet to access the online questionnaire. The questionnaire was created using google forms software as this was an online questionnaire the information was stored securely by password.

Unlike previous literature (Funk et al., 2011; Crofts et al., 2012) the length of the survey was deemed appropriate (based on feedback from participants) and therefore no items were removed from the questionnaire. Although organisers were very accommodating it was felt that the participants taking part in the survey took longer to get through event registration. Therefore, events with more time for event registration and weekend long events were chosen as the most suitable for official data collection in the 2019 season. The 419 participants completed the questionnaire during registration at five events, across seven days (all weekends). These events included two sprint triathlon, one swim event, one middle distance triathlon and one event that included several events across the three main disciplines (swimming, cycling and running) at varying distances (for example, 5k run, to full ironman distance across the three days). The registrations worked very well as all who had entered the race passed through the space. I collected all data at all events, at the three-day event a volunteer also helped hand out the tablets for participants to complete the survey.

Additionally, following the guidelines in ethics above the informed consent was included as the first part of the questionnaire (appendix 5) and no personal data was collected in any mandatory questions. There was an optional question at the end stating if they would like to be in the following phases of the study they could put contact details. Although 130 participants gave their details and were emailed about

phase 3, it did not return much interest for the interview sample. The data was kept securely by online folder passwords.

3.6.2 Events Observations

It was vital to use a methodology that aligns not only with a phenomenological epistemology but fundamentally connects to the underpinning view of ecology. As stated above an ethnographic approach was used. This section explains the methods used within this approach as a rationale and then shares my experiences based on literature presented.

Thirteen events were officially included as observation sites. It was vital to use a wide range of different events to understand the phenomenon fully. Table 3.1 shows the events attended and details on each.

Table 3.1

Events and descriptions

Event	Event Level	Disciplines and Distances
1	Signature	100-mile cycle event
2	Community	Three distances. Fell running
3	Signature – Major	Five distances. Cycle Sportif
4	Signature	Sprint and middle-distance triathlon
5	Major	Three-day triathlon event. Many distances of each discipline
6	Community	Sprint distance triathlon
7	Community	Small run event (1, 3 and 5 miles)
8	Community – Signature	Long distance sea swim event from one town to another
9	Community	10k run
10	Community	Super Sprint triathlon
11	Community - Signature	Long distance sea swim
12	Community - Signature	Sprint Triathlon Event

3.6.2.1 Observations

Authors have identified observation as an essential element of ethnographic research (van Maanen, 2011; O'Reilly, 2012; Spradley, 1980; Hammersley and Atkinson, 1995). Sparkes and Smith (2014: 100) define observation as the "rigorous act of perceiving the workings of people, culture and society through one's senses" and documenting these either in written form or by technology. Observational methods are able to record aspects of culture that is taken for granted by the participants, recording what they *actually do,* rather than what they say they do (Sparkes and Smith, 2014).

Several authors have discussed the typology of observation (Gold, 1958; Junker, 1960: 36; Spradley, 1980). Observations have been endorsed for allowing flexibility, ability to capture interactions in social contexts, and the complimentary nature of observations with other kinds of data (Simpson and Tuson, 2003). Although labels used are different between authors, they are very similar stages along the continuum. For example, Creswell (2013) lists four different types of observations ranging from complete observer (where the researcher cannot be seen or noticed by the people under study) to complete participant (where I am fully engaged with the people I am observing). Many authors have provided types of guides for participant observations (Creswell, 2013; DeWalt and DeWalt, 2011; Flick, 2018; Spradley, 1980). The seminal work of Spradley (1980) has continued to guide observational data collection research, specifically, examples in the fields of physical activity and events research (Ottesen et al., 2010; Shipway, Jago and Deery, 2020; Willis et al., 2021; Wainwright et al., 2018). Thus, Spradley's (1980) work also guided the observational process of this study. Within this study I was mostly a non-participant observer as I "follow[ed] the flow of events. Behaviour and interaction [of the observed] continue as they would without the presence of a researcher, uninterrupted by intrusion" (Adler and Adler, 1994: 81). However, towards the end of the data generation process I reflected that I had started to move towards 'moderate' and 'active' on the continuum, more by accident, due to the connections made with the local triathlon clubs and athletes that had been interviewed. I was "*invested in their season journey and thought about them during the races... At the end of the event two of the athletes saw me and came over to tell me all*

about the race, their pride and excitement was infectious". Moreover, there are degrees of participation both *with* the people involved and, *in* the activity, taking place (Spradley, 1980). Again, for this study, I was more of a participant observer with the people rather than the activities that were taking place. For example, during the events I was with the supporters and organisers rather than taking part with the athletes. The athletes were observed during the events, but their 'point of view' was gained from more formal interviews and less on the day of the event.

To observe the events the researcher has used Spradley's (1980) guidance on participant observation. Firstly, in any social situation there are three primary elements: actors, activities and place. The researcher has used this as the start of all observations as well as an idea to return to centre herself in the situation again. Observing the relationship between these elements will provide the basis of experiences shown. Spradley (1980) goes on to explain the more complex social situations where there may be several 'places' present or different activities taking place. Several of these related social situations will be similar to the structure of events. In this study, there are different actors interacting with several aspects of the event. For example, athletes and supports will interact with the race route differently but both relationships show a small part of the culture of the event.

I need to be aware of how my past experiences are affecting her decision-making during observation. As stated above there is potential to lose objectivity if the researcher has 'insider' knowledge. Authors have provided practical guidance of how to minimise this influence and keep focused on the observation. For example, Spradley (1980) provides nine dimensions of an observed environment that can be used as a focus point for times within an observation. Or Atkinson *et al.* (2001) suggests timed observations periodically throughout the event.

When observing events, I needed to still be aware of ethical dilemmas surrounding private and public domains. Most MPSEs happen in a public space therefore can be observed without consent (BSA, 2017a) so that my agenda does not influence any behaviour in its natural context (Sixsmith and Murray, 2001). The individuals spoken to at events were presented with a printed information sheet. Consent was collected verbally. My contact details were also shared, via a business card, to allow individuals to remove their data at a later date if they wanted. I also referred to ethical standards

(UWTSD, 2017; BSA, 2017b) to ensure that appropriate action was taken at each data collection point.

3.6.2.2 Field notes and product

Observation is not enough to make an ethnography. As the definitions above show writing and note-making are as essential as the other methods (Emerson, Fretz and Shaw, 2001; Geertz, 1973; Atkinson, 1992: 5). The use of fieldnotes is a form of representation – or descriptive accounts of people, scenes, behaviours, and relationships as well as personal accounts and reflections of the ethnographer (Emerson, Fretz and Saw, 2001). The aim is to present or frame the experiences and events being observed in particular ways and therefore is never a complete record (Atkinson, 1992). The influence of the ethnographer is present from the very start of fieldnote creation. The "selective and purposed" (Emerson *et al.,* 1995: 106) nature of fieldnote writing means that I am able to use past research experience, literature and theoretical concepts to guide or question the notes made. Yet, missing other ways in which the event/ experience could have been presented. Jackson (1990) and Van Maanen (2011) has also noted the loss of holistic nature of society if too much detail is included in the fieldnotes.

The active process of fieldnote writing encourages interpretation and sense-making throughout. However, authors approach fieldnotes in many ways, and have seen differences in what to include, how they are written up and where and when they are written (Emerson *et al.*, 2001; Sanjek, 1990a; Jackson, 1990:7) as well as the ultimate value they place on the fieldnote process. Therefore, thought was given to types of fieldnotes used before starting the ethnography.

Again, when approaching types of fieldnotes there are nuances and different terms given to similar concepts (Emerson *et al*., 2001). There will be several types of fieldnotes included in this study. Firstly, the use of jotted (Lofland and Lofland, 1995: 89), condensed (Spradley, 1980; Hammersley and Atkinson, 1995) or scratch notes (Sanjek, 1990b) will act as reminder key words, symbols, abbreviations and drawings to help me recall detail of the events. These notes would be difficult for anyone, apart from myself to read (Atkinson, 1992) and would be written 'in the moment' or as soon as possible after the event.

"Expanded accounts" (Spradley, 1980: 70) where the researcher provides rich detailed reports of the events observed were then used to create more descriptive records of each event. These fieldnotes aim to tame and reduce complex experiences to concise and stylised written accounts. Van Maanen (2011) present three main styles of writing that will be included in these fieldnotes. Firstly, *realist tales* were used to collect facts and concrete details of the events, keeping the author distant from what is happening, to encourage objectivity. *Impressionist tales* were used to help the reader understand the experiences being observed and use stories to give the readers an 'insider's perspective'. *Confessional tales* were used to include personal experiences of the researcher where appropriate. There are differing opinions of including these *Confessional tales*, Lofland and Lofland (1995) and Goffman (1989) highlighting the importance and Geertz (1988: 97) opposed to "author saturated texts". Moreover, while collecting constructing fieldnotes, Wadsworth (1998) suggests recording reflections that should be kept separate but alongside the observations. Therefore, reflective notes were kept (Watt, 2007; Ortlipp, 2008) to allow me to "draw a line between their subjective and observable phenomenon" (Peredaryenko and Karuss, 2013: 2; Jasper, 2005). In doing this the researcher would benefit from the advantages of the "human instrument" discussed by Lincoln and Guba (1985: 187), while recognising its impact throughout the data generation and analysis process (Bettie, 2003). I also used a reflective journal to identify theoretical or methodological ideas (Schatzman and Strauss, 1973: 100) and carry out analytical writing (including asides, commentaries and memos) (Emerson *et al.*, 2001: 362). Please see appendix 8 for examples of field notes.

Although these are the main way of collecting fieldnotes (Spradley, 1980; Hammersely and Atkinson, 1995; Van Maanen, 2011) Spradley (1980: 58) encourages researchers to "take mental pictures with a wide-angle lens" to try and collect as much information as possible. For this study I included photographs and short video clips in her fieldnotes for the same reason. This helped with generation as writing notes will be impractical at times and the photos will help refresh memory (Hammersley and Atkinson, 1995; Pink, 2013; Spencer, 2011). A collection of these photos can be found in appendix 3b.

This corpus of fieldnotes and resources were used in thematic analysis and the discussion section of the study. However, I felt it important to create an ethnographic

nonfiction of the phenomenon (McMahon and Penny, 2016; Smith, 2013; Barone, 2008; Caulley, 2008). As Smith et al. (2015) note, creative non-fiction is a type of creative analytical practice (CAP). Creative analytical practices are used by qualitative researchers "to ensure the complexity of lived experience is brought to the fore" (McMahon, 2016: 302). Within CAP authors have included written works such as autoethnographies, poems and arts-based representations (Richardson, 2000) and performance or visual style work such as performance ethnography or ethnotheatre (Gergen and Gergen, 2014; Sprakes and Smith, 2014).

Previously, this use of writing in academic literature has been referred to as fictional narrative (Angrosino, 2007; Banks, 2008). However, agreeing with qualitative researchers in the field, this study uses the term creative non-fiction to make it clear that it is based on real events from direct observations of the researcher (Sprakes, 2002; Smith et al., 2016). Ethnographic creative non-fiction is "deeply committed to the truth" (Caulley, 2008: 426). Where the empirical data is woven through a fictional style of writing (Sprake and Smith, 2014; Cheney, 2001). As McMahon (2016: 59) explains, "each story is fictional in form yet factual in content". Authors have demonstrated many strengths of using this approach as an ethnographic end product. For example, firstly, it allowed me to *show*, rather than *describe* theory and findings (Cavalleri et al., 2016). Secondly, it can protect identities (Douglas and Carless (2009). Thirdly, and most importantly for this study, it allowed for rich descriptions of the lived experiences of events (Waldron et al., 2011; Sprakes and Smith, 2014).

The use of creative non-fiction has been seen in physical activity literature in the field of football, and the experiences of coaches (Curran et al., 2014; Corsby, 2021), identity of athletes (Krane et al., 2014; McGannon and McMahon, 2021), and the wider social support culture around sport (McMahon and Penney, 2014; Knight and Harwood, 2021). In all these examples, authors were able to demonstrate the lived experiences of different human perspectives and represent the emotional layers of these experiences (McMahon, 2016).

Cheney (2001) also suggest that this piece of writing sets context for the study. Creative nonfiction allows the potential for the reader to experience the phenomenon in a small way, if they have never attended events of this nature. It hopefully provided a deeper understanding of the experiences but also a picture of findings of the study

(Cheney, 2001). Moreover, influenced by the work of Frank (2010), it was vital for the creative non-fiction to create a place where multiple understandings and ways of being were displayed side-by-side. Although important to demonstrate what the participants of these events experience, it was as important to include the experiences of volunteers, family members and Pembrokeshire residents. Chapter two, 'An Event-full Weekend' was the final creative non-fiction product.

3.6.2.3 Researcher Experience

It was important to be at every event at least one hour before to observe the build-up. Fieldnotes were created in three stages. Where possible jotting notepad was used to quickly take down key words phrases and doodles to remember key observations. However, when the weather prevented this, photos were used where possible to collect photo reminders of the events. Reports were then written after the event and strategies of reflections were used while writing reports and revisiting ideas (appendix 9). Different colour inks were used to record reflections and comments after the events. For example, where patterns were identified notes were made on previously written reports.

3.7 Phase 3: Participant Perspectives

Twenty-seven individuals were interviewed through phenomenological semi-structured approach. Questions were created that followed a basic structure (appendix 10). These questions were based on ecological and salutogenic ideas. However, the individuals were encouraged to talk openly about their experiences. As a result, most went on tangents to discuss things that they felt were relevant and important to the conversation. This was seen as a successful interview. All interviews lasted between 45 minutes and two hours.

Most interviews took place in local coffee shops chosen by the participant. Some interviews were carried out in their houses at the request of those participants. All interviews were voice recorded and this was agreed with the participants before proceeding. As the study is concerned with participant experiences it was important to include as many people as possible including all demographics. As there are many MPSEs in the area the events act as a social melieu for the study. Therefore, it was also

important to include individuals with varying experiences. Pseudonyms were used for anonymity. Profiles of participants interviewed are presented in Table 4.2 to demonstrate the diversity of participants in this study. What was evident throughout the phases was participants, engagement and benefits from MPSE physical activity were not exclusively for those who took part in certain events, or certain gender or age. I have tried to demonstrate this with the profiles below.

Table 4.2

Interview Participant Profiles

Participant	Profile
Melanie	A mother of two in her early 40s. Melanie takes part in more extreme events after completing the Ironman Wales years ago. She likes taking part in ultramarathon events in cold weather. After taking part in Ironman Wales Melanie changed her career to triathlon and long-distance events coaching.
Louise	A mother of two who just turned 40, she used this milestone to sign up to her first Ironman Wales event after doing years of smaller distance events. She “never thought she would ever do an Ironman!... but [is] loving the challenge”.
Howard	A man in his mid 40s, Howard started training for Ironman because it went pasted the bottom of his garden every year, he first felt trapped by the road closures but quickly felt inspired to sign up himself. Howard did not know how to swim when first signing up and gave himself nine months to learn to swim the 2.6miles! He still feels challenged by his swim ability but loves taking part in Ironman Wales every year and not really interested in any other event, other than as part of his training towards Ironman Wales.
Emma	A regular at the local park run, Emma is in her early 50s and loves taking part in short training runs with her friends each week. She has previously taken part in half marathons but enjoys the shorter runs for the social and to maintain fitness. If she misses one of her

	runs she “really notices it and [is] desperate to get out for the next one that week”.
Rachel	Rachel is in her late thirties and previously was petrified of the water. After learning to swim with a group of mums from the school playground, Rachel now enjoys pushing herself to middle distance events including doing the longest swim event (2.6miles) last year – “I was the last to get out [of the water] but I did it and I was so chuffed… triathlon next!”
Trevor	Trevor spends as much of his week as he can fell running around the Preseli Hills. His favourite thing is to go out without a watch and just run until it gets dark. He is proud of where he lives and loves introducing others to running over the Preseli’s. He is famous in the village for organising community level fell running events and getting the whole community involved.
Geri	One of (“if not THE”) first woman in Tenby to complete the Ironman Wales event and after years of taking part in organised events now enjoys trail and fell running with her dog as a way help her wellbeing. She has started to look at Cani-Cross (cross-country running with a dog) events to take part in as her next challenge.
Tina	Tina, a 45 year old mother of three, can only take part in swim events due to a disability but looks for lots of opportunities to enter swim events with friends and has also completed a few team triathlons as the swim-leg.
Jason	Jason, a high ranked military officer in his fifties, has taken part in Ironman Wales for the last seven years and is still aiming to get the quickest time he can – he “has a time in mind he is working towards”.
Matthew	Has taken part in several events in the past, but mostly enjoys taking part in long distance running and cycling to socialise with friends.

Nicole	Emma a mum of six, loves the identity racing give her and has created a career helping others as a personal trainer and swim coach. She has been labelled “ironmum” in villages she use to live. She also organises three informal running sessions for people in her community.
Jo	Jo (late forties) “has pretty much tried everything” available in Pembrokeshire and normally finishes in the top two of her age group in most events.
Hannah	A 42 year old sports masseuse and personal trainer, loves competing at a high level in the events and normally wins ‘first female’ or at least top female for her age group in triathlons and ultra-marathon events.
Gary	Gary decided to train for ironman eight years ago after losing his wife to MND. Since then he takes part in several events a year from sprint triathlons to ultra swim events and loves taking part in extreme events with his friends for charity. He couldn’t swim before signing up to his first Ironman Wales event.
Robbie	Robbie has taken part in every Ironman Wales except the first one in 2010. He is one of the founding members of the biggest triathlon club in Pembrokeshire and “lives for” the weekend rides with friends and other members of the club.
Victoria	Heads up one of the biggest triathlon clubs in the area. Victoria has represented GB in triathlon for her age group and has inspired other to follow in her footsteps. She leads the sea swim session that tourist sign up to when they visit.
David	Victoria’s husband, David has taken part in every Ironman Wales, apart from the most recent which he missed due to an injury two weeks before the event! David organises a speaking event every year in the days leading up to the Ironman Wales where he shares his wisdom and “insider knowledge” on “getting around the course”. Interestingly, this event was praised in one of the race-report blogs.

Natalie	Natalie, a 31-year-old mother of three young children, has taken part in events but much prefers training runs focusing on half-marathons distances. She enjoys the fact that running is “part of her everyday life”.
Ross	A local Pembrokeshire teacher that has taken part in seven Ironman Wales events and now wanting to focus on small triathlon events to help improve his speed.
Jamie	Jamie is the husband of Louise, was an elite swimmer in his late teens, but after many years of not doing any physical activity signed up to Ironman Wales while drunk at his 40th birthday party and has not looked back since. He loves taking part in events in the area, of any distance and loves training with his wife every week.
Zoe	Lived in the area all her life. Zoe has taken part in many MPSEs in the past, but now engages in MPSE physical activity throughout the week including running along the coastal path and long distance cycle rides on the weekend.
Cat	Cat has lived in the area for many years and although has taken part in her occasional event. She uses long cycle rides to catch up with friends and enjoys watching the events more than taking part in them.
Sara	Zoe’s partner, Sara has engaged similarly to Zoe in MPSE physical activity through the week. They both state engagement is vital for their mental health.
Marc	One of nine people that have taken part in all Ironman Wales events so far. Self-identified ‘lazy ironman’ he makes sure that he is competitive in the cycle and then “it’s all about just getting around”. Him and Jason train together on the bikes.
Jon	‘Caught the bug’ from being ‘trapped in the house’ by the ironman race. Watching the race for years made him take part. He only takes part in other events to make sure he can take part in Ironman Wales each year.

Bradley	Has participated in MPSEs including multiple Ironman Wales but now takes part in the short distance events and maintains training in MPSE physical activity.
Declan	A resident, who lives in the heart of Tenby. He believes the races are a big inconvenience, but has had a BBQ in his garden with friends watching the runners for the past four Ironman Wales events.

3.8 Data Analysis

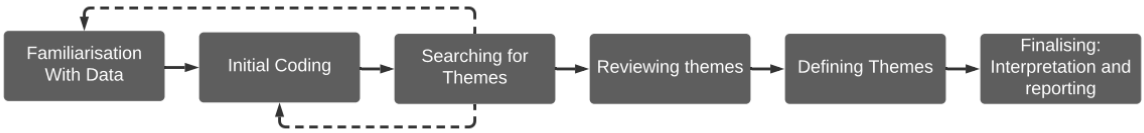
3.8.1 Qualitative Analysis

Qualitative data sets included 70 document sources from phase one; event reports and fieldnotes from phase two; and all interviews carried out in phase three. NVIVO 11 and 12 software for Windows were used to support analysis. The software allowed me to organise and manage big sets of qualitative data and recognise themes (Bazeley and Jackson, 2013). Through the extensive analysis process of the qualitative data sets, I benefited from the flexible yet robust process of thematic analysis (Braun and Clarke, 2006). Although there have been many nuances of thematic analysis (Boyatzis, 1998; Patton, 2002; Joffe, 2011), this study required an approach that could manage the evolving nature of analysis across the three phases, as well as provide opportunities to revisit data for subsequent themes. For example, Braun, Clarke and Weate (2016) discuss active choices I must make when engaging with the data. When approaching data-coding, the authors discuss a bottom-up (inductive), "data-driven" theme development or top-down (deductive) where the data-coding is driven by theory or concepts (Braun, Clarke and Weate, 2016: 194). Both these approaches were employed at different stages of the analysis process. Ecology was used as a lens in the initial stages of analysis where Individual, Social, Community/ Organisation, Physical Environment, and Society & Policy were used as the starting basis of nodes. Therefore, taking a 'top-up' theme development approach. However, following Braun and Clarke's (2006) six steps of thematic analysis (Figure 3.3) the process not only took a linear route but at times initial codes were revisited, revised, and sometimes replaced depending on what the participants shared. Braun, Clarke and Weate (2016: 197) describe this as "a recursive and reflective process" where, when done well, these

forward and backward steps through the whole process of thematic analysis is expected, even encouraged. This is where the bottom-up, data-driven theme development played a vital role in the data analysis process.

Figure 3.3

Steps of Thematic Analysis process



Braun and Clarke have also spoken explicitly of the active nature of theme creation (Braun, Clarke and Weate, 2016; Braun and Clarke, 2013; Braun and Clarke, 2018). The authors discuss the issue with describing themes as 'emerging' (Braun, Clarke and Weate, 2016; Braun and Clarke, 2018). Rather, it is important to appreciate the role of the researcher in active creation of the themes (Braun and Clarke, 2018). As Braun, Clarke and Weate (2016: 197) state, "your analysis is produced through the intersection of your theoretical assumptions, disciplinary knowledge, research skills and experience, and the content of the data themselves". As stated, this is another point where the I need to acknowledge the influence on what I considers relevant and interesting. Again, with the ability to be responsive, knowledgeable and deal with sensitive issues the researcher is a key instrument in the data analysis process (Lincoln and Guba, 1985: 187; Hatch, 2002; Peredaryenko and Krauss, 2013).

Although the steps were revisited at certain points in the process, each of the six phases (Braun and Clarke, 2006) were vital for the study. Familiarisation with all the data sets were key. Actions such as transcribing the interview data helped a great deal at this stage. It helped to get a 'feel' for the participants experiences but also when reading or transcribing other data I could continually hear the voice of the participants and notice patterns and similarities. NVIVO software explore-tools such as Word Frequency (appendix 11) and Text Search (appendix 12) also helped at this stage. Providing a more quantitative analysis of the data sets. Although helpful, it had its limits to allowing complete exploration of the data. It was preferred, although time

consuming, to read and reread the transcripts and other data. This acted as the second step – initial coding. The simple ecological categories were used as starter nodes (NVIVO theme files) to organise and sort the codes (words and phrases that reflected the themes).

As part of the next two steps, 'Searching for themes' and 'Reviewing themes', these nodes were reviewed and many 'child nodes' were created (appendix 13). These child nodes helped recognise transverse themes that became the findings discussed in chapter six. The process between searching, reviewing and defining themes was very complex, and sometimes frustrating, especially when the transverse themes were detectable but unclear. Small 'glimpses' of the main findings were present but required continual analysis of data and literature. Therefore, there was an important process of analysis between what you see in appendix 13 and the findings that are presented in chapter 6. The node books were printed out from NVIVO. I not only re-listened to the interviews but highlighted by hand key themes that better demonstrated the actual feelings and key points that were said by the participants. These quotes were then cut out and linked under headings that defined the final findings (appendix 14).

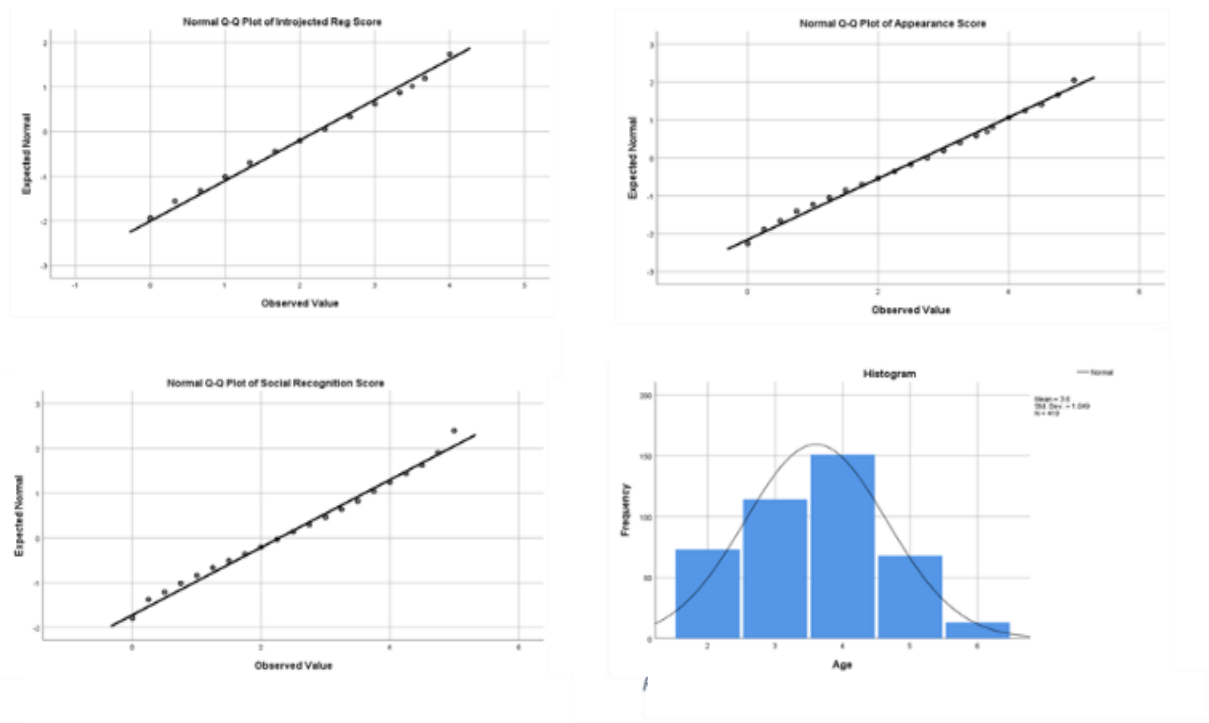
3.8.2 Quantitative Analysis

To assess and clean the data IBM SPSS version 26 was used. Two participants only completed part of the full survey and therefore were removed so there were no missing values. Therefore, sample number used was 419 participants. The next phase of analysis assessed the assumptions of normality of descriptive data and questionnaire data. Due to the complexity, and potentially unattainable completely normally distributed data, Kolomogorov-Smirnov, histograms and Normal Q-Q plots were all considered to demonstrate normality. It has been demonstrated across many fields of psychology that the assumption of normality is expected to be violated (Glass et al., 1972; Cain et al., 2017; Yuan et al., 2004). Linked to this study, Delacre et al. (2019) highlight the impact of subpopulations and subgroups may lead to asymmetrical distribution. The group studied were individuals taking part in mass participation sports events, they filled out the questionnaires at registration time of the event they had been training for. Therefore, we would expect their motivation to be relatively intrinsic, influencing the skew and kurtosis of the distribution of data.

As expected all results from both the motivation questionnaires reported a Kolmogorov-Smirnov score of .000 across all motivation questions (not normally distributed). However, Normal Q-Q plots observed a relatively normal distribution (Figure 3.4 as examples). Likewise, demographic data was relatively normally distributed (see figure 3.4 as example). Therefore, it was argued the data was classed as suitable for parametric tests that considered the mean as appose to mode or median. Additionally, the nature of the questionnaires as well as the fact that athletes would be similarly motivated suggests there may be numerically small differences in scores that need more clarity than mode or median scores can provide. Therefore, the benefits of treating the data as a mean score outweigh the deficiencies. However, due to the complexity of homogeneity of variances authors have argued for the use of Welch's Analysis of Variance (ANOVA) (*W*-test) whether variance can be assumed or not. Delacre et al. (2019) found that when variances are equal, Type I error rate and power are very similar between W-test and F-test. However, the study found that when variances are unequal, the W-test "provides empirical Type I and Type II error rates that are closer to the expected levels" in comparison to the F-test (Delacre et al., 2019: 2). Therefore, to ensure consistency of analysis Welch's ANOVA will be used throughout, as there are some areas within the data that variances is not assumed. Games-Howell post-hoc test will be used with Welch's ANOVA to identify where significant difference is between groups.

Figure 3.4

Normal Distribution Examples



3.9 Summary

This chapter has presented the methodology and research design of the study. As the research topic explored several aspects of MPSE engagement and the role of the wider community in events several methods were required. As presented, document analysis was used to demonstrate the growth of MPSEs in Pembrokeshire. Phase two used both quantitative and qualitative methods to explore motivations and experiences of participating in MPSEs. As expected the initial findings from this phase informed the use of interviews for the third and final phase of the study. This chapter also explored ethical considerations and data analysis processes for both qualitative data and statistical analysis for quantitative data. Therefore, the following chapters presents the data. The next chapter presents the ethnographic report as a creative nonfiction of two events.

4. An Event-full weekend

This chapter presents a weekend of two events. To paint a picture, data from observations and interviews have been collected to present a creative non-fiction of the findings. Instead of presenting these findings in the traditional place of the thesis it is used here to give the reader the sense of events and an insight into the relationship between the events and the community of Pembrokeshire that hosts them. The first example (Saturday) presents a community-level event. Through the observation period (2019 season) I carried out ethnographic reports on eleven community level events. Although the example is based at one particular event, the interactions observed, and participant voices are gathered from across all eleven events. The information in this example is compiled from ethnographic fieldnotes and reports, incidental conversation that occurred at the event with community members, volunteers, and spectators, as well as more formal interviews with community residents and organisers. The example discusses a fell running race. Other events observed include an endurance swim event; swim/run and endurance swim event; three sprint triathlons; a duathlon; a sportif; and a go-tri event. All events were organised by individuals from the local community. Where most of the volunteers were residents of the host villages.

The second example (Sunday) presents a signature event. During the observation there were two signature events in the season. The most famous signature event was the ninth Ironman Wales held in Tenby, Pembrokeshire, in September. North Beach hosts the 2.4 mile swim followed by an unique transition (T1) kilometre run back to the transition area in the middle of the town. The athletes then head onto a 112 mile bike route that loops twice around neighbouring towns and villages across the south of the county on a fully closed road route. When arriving for the last time in the transition area the athletes then complete a marathon which consists of four 10k loops around the streets of the town including four long (two kilometre) climbs out of the town to a turning point north of Tenby. All athletes have 17 hours to complete the full course with many of the professionals finishing around 9 hours and hundreds of athletes finishing in the 17th hour – “hero’s hour”.

The second signature event is a weekend long festival of events based around the ironman distances. The Long Course Weekend (LCW) was created by a Pembrokeshire organisation, who first held events over a weekend covering the distances and routes

of Ironman. Since then, each sub-event across the weekend has developed. The Friday event, hosted on North Beach, first sees a children's event with different ages swimming and running different distances to experience the cheering crowds as they finish. Friday evening sees the 2.4mile swim along with smaller distances to give many options for participants of different experiences. The LCW Saturday event is a cycle sportif of different distances with the 112-mile route being the longest (the 2019 race was the first time this sportif was on closed roads). The final event, on Sunday, holds the marathon and as well as shorter distances as small as a 5k run. LCW is now a brand taken worldwide covering many other Ironman routes internationally. Both these signature events have paid staff that support the running of events; however, they rely on groups of volunteers to help with different areas of the event such as bag sorting in the transition area and food station around the cycle route. The organisers target groups within the community such as scouts and children's groups or sports teams. The groups are given a money incentive if they get a certain amount of people involved. From a community perspective the event is owned and run formally by the organisers, there is no formal ownership over these events by the community, however, as will be demonstrated in the second example, the community have created strong ties with both events. The creative nonfiction example (Sunday) is based at Ironman but uses the ethnographic fieldnotes and reports from both events, as well as incidental conversations during the event with the supporters and volunteers and community members around the event. The long day means that this example will be marked by subheadings with time-points and summary of athlete and spectator actions as the day progresses to demonstrate the enormity of the event. Due to the nature of these events, being internationally known, many participants write internet blog posts about their experiences at the event, several of these 'athlete's stories' have also been included to demonstrate the communities presence and relationship with these events media reports and articles written about both events have also been used. See appendix 3a for a map of Pembrokeshire with route areas and appendix 3b for photographic accompaniment of this creative nonfiction.

4.1 Saturday – A growth/ community level event – A local Fell Running race

I had been here before, a few days ago and to say it was a different place is an understatement. What struck me then was how dead it looked, and not just a quiet sleepy village, it looked dead. There were two boarded-up buildings on either side of the road, one a beautiful old pub building speaking of the life once lived in that village, opposite it was sat a pub still open but closed that afternoon. Today, although those buildings were still boarded up, you would have been forgiven if you didn't even notice they were there with everything else going on in the village. It was definitely not dead but thriving. The village has a main road running north to south with another joining from the east, although they are main roads in Pembrokeshire, in places they are only wide enough for one car to fit through. Parallel to the road is a dirt track lane creating a pretty, little island where the chapel, a children's playground (to the north) and a grass area (to the south) are located. This grass area today is covered with home-made bunting, or rather school-made, as a couple of years ago a class in the local primary school painted and coloured the race logo and the organisers (a police community support officer and his wife) strung them together and now they proudly dress the trees around the makeshift and homemade finish lines for the races today. The finish banners and cordon tape directing the athletes to the finish line are blowing in the wind and leaning jauntily, just adding to the charm. I see Trevor (the main organiser of the event since its start in 2012), he is sprinting from the finishers tent (supermarket bought marquee) to the community hall, where the athletes are registering, as he passes he takes the time to ask myself and others how we are and if we need any help with anything (although his hands were completely full and he was obviously in a rush). There were others milling about waiting for the start of the event.

I couldn't help but think that the smell of cooked breakfast and coffee coming out of the café across the road from the finish line might not have been helping the nervous athletes as they paced past. The café was heaving, mostly with athletes and their families – athletes spotted by their well-used trail trainers and small amount of clothing for this cold April morning; friends and families identified due to the number of layers they had on in comparison to the athletes to protect them from the brisk morning. A group of cyclists "*on their long weekend ride*" were on the outside seating, a group of about 12 male and female riders of various ages were sitting around with

their "*carbon fibre bikes, because everyone's got one*" drinking coffees and chatting. The café, they tell me "*is perfect, because it is welcoming to cyclists and on loads of good bike routes around the county, [they] love stopping here*". On talking to the café owner I am surprised to hear that today is the anniversary of the café opening "*it opened on race day last year and we haven't stopped since, with so many people passing on cycle routes throughout the year. I think the Beast has made the hills popular – we do have people coming to run and hike too*" as well as other events using the village as key milestones. The café is also giving a 10% discount for athletes and supporters of the race today.

Outside the café, Trevor is organising last minute information with a group of six men all with well-used heavy-duty walking and hiking kit. They do quick checks of their walkie-talkies and fold their maps back into their rucksacks, Trevor introduces me to his son-in-law who explains "*me and my dad have marshalled since the start. Trevor got us involved as we know the hills so well, I have lived here all my life, some of the others are local farmers and people who live in the village, pretty much all of us have grown up on the hills*". The pride as he says this is clear. There is a sense of ownership over the hills where some may need his help to get through or over a place, like only people who have "*grown up on the hills"* are privy to certain secrets and pathways. They pile into the muddy 4x4s and head on towards their designated spots to wait for and to guide the athletes.

The local community hall is the hub where most of the athletes are waiting and warming up with stretches and pre-race rituals, inside are ten to twelve volunteers welcoming the athletes, handing out race packs and explaining the setup of the races. The volunteers were friendly and so helpful, "*we've been helping for a few years now*" turning to her husband, "*well you have helped a few more years than I have, we were saying we might even give the short race a go next year.*" She goes on to tell me that she also helped assemble the race packs the night before where the volunteers didn't leave until 11pm, "*it's alright though, we only live down the road, you know the house with the Preseli Beast flag in the window – that's us*". Trevor is still outside but the volunteers seem to know the answers to all the questions put to them. Some explaining where the temporary car park or where the Cawl (Welsh soup), cakes and drinks will be served after the race finishes.

The centre of the village is even busier with athletes and their friends and families making their way to the start-line located just beyond the children's play area, as well as small groups of hikers and dog walkers who are slowing down to take in the site of this traditionally quiet village swarming with activity. The friends, families, supporters, and spectators start to line both sides of the road north out of the village, the houses behind covered in bunting and Welsh or race flags. There are several people standing in their front gardens in anticipation of the start of the race. At the top of the road, just before the route goes off-road are two snare drums set ready to be played. The owner of the local shop is sitting just ahead of the start-line in a beach-buggy covered in race logo bunting and stickers watching the athletes gather at the top of the playground.

Trevor is the final one heading up from the direction of the community hall shepherding any late-comer athletes and he addresses the group of 80 or so athletes under the home-made start-line. The important safety briefing is listened to quietly with Trevor shouting the information from on top of a small wall. As the race starts, the noise from the make-shift guard of honour each side of the road is deafening! Supporters on the pavement are shouting and cheering with children waving to the athletes waving back at them, some high fiving the children with their hands out. The residents, in their gardens are leaning or standing on their walls, with three local women banging a saucepan and wooden spoon together to add to the noise. It's worth noting that these women are at least 70 and one is standing on a wooden kitchen chair wedged into the grass of her garden. The athletes are slowly moving up the road, towards the two drummers keeping a solid beat, and spreading out as some set off at a run and others walking quickly to savour the support. This is the first of two starts with the shorter two races taking off together in an hour's time. The noise continues until the last runner is out of sight.

The crowds disperse and I am alone walking back towards the centre of the village. A woman, and her teenage daughter approach me, presuming I have a friend or relative in the race. They let me know that it will be an hour's wait until the next start and asked if I would like a cup of tea at their house. They point out their house as a small, white farmhouse opposite the primary school, a few houses up from the café. I had never met them before, yet their offer of a tea and a warm place to wait for the next race seems well-placed, in what seems to be the smiley-est village in Wales. While we

sat, I explained a bit of my research and why I was watching the races. They began to tell me their involvement with the race since the first in 2012.

"*I remember Trevor knocking the door and saying he had an idea for the village and was having a small village gathering in the community hall in a couple of evenings time, he already ran a couple of smaller events and we all know how much he runs himself, he's crazy that one*".

I ask her what the feelings and opinions were,

"*I think we all thought it was a great idea, when my children were small there were village festivals and things like that, that we all got involved with so, think everyone was up for helping as much as they could. The children were young at the time so I got involved in the night before stuff – cake making for the meal and sorting out the race packs that the runners get on race day, my husband has been one of the marshals from day one, he is out there now somewhere*". With an air of nostalgia she goes on, "*It's funny really isn't it, everyone is in such a rush these days and all the children have grown up and moved away from home, the race is the thing that brings us together again, last night even – I hadn't seen a friend in the village for months so it was nice to catch up while we put the packs together*". She went on to tell me that it was a bit of family affair these days as her son has been the race photographer for the last three years, following the participants, getting shots of the run, and video for the website. I ask the daughter how she was involved,

"*I used to help register people on race day, but a few years ago I started running the Beast Bach ('bach' meaning little in Welsh, the shorter race of the three), I really enjoyed doing it so now I just help the evening before with the packs and setting up the hall*."

"*Yeah there seems to be a group of us now that have got into running the short race, so we help the day before and those that don't want to run the race help on the day, we all like getting involved and doing something though*" the mum agrees.

I leave the house to let them get ready for the race, around the start line the number of people is building again. Trevor lets me know there will be bigger numbers for the second race as the shorter distances are more accessible. I drop into the café again

where there are two other big groups of cyclists (one group of 8 and one group of 10) with coffees and cakes.

Wandering around the village I see how other members of the community have got involved in supporting and help run the event. Many of the local businesses have sponsored certain parts of the race like the finisher's medals, St Johns (first aid station) covering the event, race pack goodies, volunteer t-shirts. The businesses are based in and around the village, being local plumbers, farmers, cake maker, and local newsagents.

The second race goes off without a hitch in the same fashion as the first, with everyone out hitting their pots and pans and spectators lining each side of the street. The volunteers seen in the community hall are also here supporting and cheering. As the crowd disperse again these villagers are responsible for the finish line, collecting names, timing chips, and handing out medals. The villagers I spoke to previously say they split into two teams one sent to organise the food and cake for the athletes after the race (they have a sit-down meal together for those that can stay), and the rest are either supporting the race or helping with the finish line.

I get a good place to sit, now on the grass bank around the finish banners, and take in the site. There are groups of families and friends spaced around the grass, some on picnic blankets and others on benches (pub owned, benches set up on the grass across the small lane from the pub). Talking to the groups of people who pass; some are here supporting friends; each group are supporting two or three people between them. There is a group of mothers with their children who all have husbands/ partners doing the race "*it's like we have created a little support group*" one of them laughs. The children are happy playing on the grass, the mothers have come prepared with snacks and little games. There is nothing put on specifically by the race organisers, but children are happy to play together. Later on, as runners are starting to arrive back I overhear a few of the children asking about their fathers' time and whether he will be too much longer.

The villagers who were seen in their own gardens at the beginning of the race are arriving slowly and setting up their picnic blankets or joining groups that were already set up. As they walk to their places they stop and talk to nearly everyone in the area,

some asking if specific people were doing it this year, others asking about the time they expect the runners in.

The villagers I met in the community hall and some of the other volunteers sat with me and began telling me about why they get involved,

"*It's good for the village, isn't it*" one of the men say, "*I mean we get some visitors through the year anyway but there have definitely been more runners these days and cyclists because of all the other races around Pembs*".

"*It's like a replacement of the community fairs we used to have, we get to see each other, most weeks we are so busy with our own things, so weeks go by and we might not have caught up properly for a while, but the race is in all our diaries*" another man adds.

His partner carries on "*it's more than that though because these are visitors*" pointing to the women on the grass*, "and we want them to have a lovely time here, we love it here and they can have a small taste of it when they're here*".

"*I think it's nice to be involved in something good, yeah the hills are absolutely beautiful so it's nice for people to come and explore them, the village is getting quieter and quieter these days, I dunno if it's the most of our kids have grown up, but now there's a few more visits between the race and all the cyclists that come around, the café has done really well this year because of that I think.*"

"*These days we are like a little team, we know the jobs we are doing, we have run enough of these now to know what is needed, and how to help Trevor*". On hearing this I ask the villagers what sort of jobs do they do?

They laugh and start reeling off a list between them: "*bake cakes, and pack the stuff into the athlete packs, put up the bunting, the finish line signs and tapes up, set up the registration stuff and the evening tables, on the day some of us will help sign all the athletes in and make sure they know all the information they need to, some of us marshal up on the route, some of them have even dressed up in fancy dress to entertain the runners for the last few years, people will be in charge of timing and medals and everything here at the finish*".

"*We love it though, it's a really fun thing to be a part of*".

I asked the villagers if they know of anyone who finds it a disruption or doesn't like the race. They suggest that all the village really enjoy the race even if some of them don't leave their house and are just happy to support from their gardens, "*it's not really that big a disruption it's not like some of the races down in Tenby that close their roads for the whole day*".

We start to hear cheering and cowbells in the distance that signals the first runner coming back. The noise gets louder as more people start cheering as the runner gets closer to the end of their race. The local radio presenter shouts out their number as a man next to him quickly enters the number into the laptop to know the name of the winner. Next to me the villagers are impressed with the time,

"*Wow, this has to be some sort of record, it's got to be the short race, what was the time last year again?*"

"*I can't remember off the top of my head, but it was definitely over an hour. We are at about 55 minutes right now*" he confirms, looking at his watch. They seem invested in knowing the times of the fastest people in each race, both male and female runners.

The villagers in the finish tent work hard to hand out medals collect athlete information and make sure it all runs smoothly. As the first few runners cross the line the atmosphere on the grass area pics up from a quiet picnic to cheering and clapping for each of the runners in. The attention of all the spectators is on the first runners, with the children cheering and people clapping enthusiastically.

As we are watching the athletes running down the path and up onto the grass bank towards the finish I see a group of five spectators all dressed in yellow and blue, a very common sight at any events in Pembrokeshire – this is one of the seven triathlon clubs based in south of Pembrokeshire alone. I wave as I have met several of 'the Aces' before, at other events and three walk over. They tell me that they have two in the short race and three in the long race "*we try and get a group of us at every race that one of us is in, we have had the same support when we race*". It is common to see the local clubs supporting in other ways too. In a recent Go-Tri (council run, very short triathlons for beginners to try it out, with a more pleasant pool swim!) the Aces were marshalling the bike and run route. The organiser told me after the event that if it

wasn't for the Aces they would have to cancel the event "*a big bunch of them turn up every year to help marshal the event, without them here we wouldn't be able to do it".*

As more runners arrive the enthusiasm wanes. For some of the spectators (including villagers) they do not even pause their conversations but clap when others clap. As the family and friends recognise their athlete crossing the line they give a huge cheer which is reciprocated by the athlete's beaming smile and tired wave to them. No matter the enthusiasm the athletes all smile with relief to finish and welcome the cold bottle of drinking water handed to them by one of the villagers.

As the last few of the athletes cross the line the momentum builds with the crowds (although much smaller) giving a rousing cheer with the same energy that they gave the first runner back. Trevor had moved to get the athletes settled in the community hall for their meal trusting the pack down to a few of the locals before they head off home after helping run the happiest and, friendliest, community owned event for another year.

4.2 Sunday (and the build up to it) – A signature event – The Ironman Wales 2019

A few notes about the race build up from Thursday to Saturday.

For many athletes, the anticipation and build up for this event started at least a year ago. The race day inspires so many people to take part, after watching friends and family finish, or just after coming down as a spectator to experience the infamous spectacle of the race in the county. Talking to a local athlete recently he described it, "*it's like when the Coca-Cola lorry comes into town you know Christmas is on its way. People here look out for the Ironman lorries in the same way, you feel the excitement building as soon as you spot them*". Visitors to the county start arriving by Thursday, with many staying for at least a week in the county. There is one chain hotel in the centre but otherwise hotels, and bed and breakfasts are run independently. Tenby, and Pembrokeshire as a whole, is a popular holiday destination especially in the warmer months to fully appreciate the coastal national park and opportunities for outdoor activities. With tourism being one of the biggest sources of economic income for the area the county is set up to welcome a large number of visitors. That said, for

the last five years the whole area has sold out a year before the event and in many cases "*could sell-out three times over with the amount of interest*" to experience one of the most punishing ironman courses in the world.

Tenby itself is a small quaint town, known for its cobbled streets, 13th century town walls and picturesque beaches. Over the build-up days the Ironman franchise take over an area of the town where the transition tent is set up for the bikes, expo events (fair type events where similar businesses set up stalls), registration, and safety talks are. The rest of the town has Ironman fever where windows of shops have flags or Ironman t-shirts, and cafés have discounts and offers for those here for the event, cafes are also offering 'all-you-can eat-pasta-for-carbo-loading' throughout the days before. Local athletes and clubs also get involved in the build-up. Two athletes from the local triathlon club lead a talk about what to expect on the race, some "insider tips" and pointers. Apart from living here their whole life one of the athletes has also completed in every Ironman Wales so far. These Pembrokeshire experts give their time and guidance freely, this year having to rent a bigger space for the amount of people wanting to come along. Several of the local clubs also organise small bike rides and sea swims that visitors are welcome to attend. The manager of the Tenby Aces tells me, "*It's good to do these rides because we know the route so well so we can share some pointers"*. What strikes me is the same feeling of pride and ownership over the route, similar to the marshals in the event before. What is also evident is that those milling around the town centre make it known if they are part of the MPSE world. The badges of honour are spotted on all, not just the arm band that identifies the athletes in the race this year, but also many have the ironman logo tattooed on their leg and others wearing t-shirts emblazoned with previous dates of several famous and notorious races. Most noteworthy is the number of previous Ironman Wales t-shirts and hoodies being worn with the coveted title of 'FINISHER' printed across the back to prove they have successfully "*tamed the dragon*". Saturday before the event is probably the second busiest day with visitors still settling in, athletes dropping off their bikes to the transition area and visiting the expo, children have their own race also that gives them the opportunity to experience the finish line and the crowds cheering.

VERY early Sunday morning.

All the week's build-up is for one full day of racing. For everyone, even spectators, the day starts early. The athletes must wake about 3 am and the day starts with an energising breakfast that will fuel them ready for the start of the race. These days it is not uncommon to see hosts (bed and breakfasts) going above and beyond, from attending courses to gain knowledge on high-energy meals, and providing breakfast at the right time for the athletes the morning of the event, "*another lovely touch*" writes one visiting athlete. Many special moments like this are recorded by athletes with one sharing that their host had presented them with a bottle of champagne and a certificate for being the first Ironman to stay at their Bed and Breakfast.

Staying in a house about 20 minutes outside Tenby means that it is an early wake up because myself and thousands of others are about to do the same journey. The idea is to leave early to get a parking space. I pass through villages, where most houses have their lights on, cars starting up, and people walking along the pavements at 5 am on a Sunday – it is a surreal sight to say the least! After parking up I start to walk down towards the beach with what seems like the rest of Pembrokeshire. It is dark – pitch black, the country roads mean there is minimal lighting, what guides the way on this early morning is small bobbing lights, not dissimilar to lines of fireflies as the torches being held by the walkers bob along the path towards Tenby. It is 5:30 in the morning but the feeling of excitement and anticipation is felt as I say a polite 'good morning' and catch the eye of many walking towards the town. It is about a 25-minute walk from where the car is parked. As I get closer to the footpath that directs us away from the main road and down through the woods to the top of the beach this avoids the most dangerous bit of the roads that are still open until the swim is over. As the woods open up and I am faced with a navy-blue sky lightening gently with the start of the sunrise and the sea reflecting the same picture, there are already thousands of people milling along the beach and the walkways. It is still early so I am able to find a place on the walkway up from the beach.

Ahead of me is the ocean where 40 or so boats out beyond the temporary blow-up buoys signal the distance the athletes must swim. Across the beach, as the tide is coming in, spectators are lining the edges of the cordoned area which will direct the athletes to the start line and direction of the "Australian Exit" (athletes will exit the

water after their first loop, do a small run across the beach and enter the water again for their second loop). The anticipation felt earlier is building among the spectators – the concern is to find the best vantage point for the start of the race and to keep their eyes peeled for people they know "*you are bound to see people, everyone is here*" a resident tells me. To the left is the organiser's stages and tents, the look is very professional, in comparison to the previous race, with Ironman branded flags on the railing, across the whole length of the beach. To the right, the rest of the beach is also covered in flags and banners, and spectators are lining each side of the pathway into the sea – some already standing in the water. The noise level is high as people are chatting amongst themselves and music is playing through the speakers with intermittent information and count down to the start from the commentators. An interesting sight here is six men walking across the beach with two cases of beer, other men also had open cans in their hands. It is 6:40am.

As I look in the direction of the centre of the town the whole street overlooking the beach is crowded with rows of spectators four to five people deep. Beyond them flags held up by volunteers are floating above the heads of the spectators and athletes making their way down to the start line on the beach. A visiting athlete describes this moment as "*overwhelming"*… they continue… *"it's as if the whole county has turned out, mixed with nerves I can feel my throat chock at the thought of the magnitude of what I am about to do*". The athletes are paraded down a zig-zag pathway to tie their pink equipment bags to the railings and then proceed to the athlete area on the beach. As the athletes settle in the starter's pen the sun is rising creating pink and orange paint strokes across the sky. The presenters are building the atmosphere in the crowd with music and shout outs to the athletes and their supporters, not to mention the numerous triathlon clubs based in South Wales, including the seven clubs in this area alone. When clubs are mentioned you see big groups of people dressed in the club colours cheering over the music. Looking across the now full beach you don't need any help to spot the triathlon clubs, with people dressed in the colours of their club, the local clubs are represented in huge numbers of spectators with banners, wigs, fancy dress with all the groups. The local clubs are also chatting with many of the other people around them, there are hugs and introductions of other members of the group.

AC/DC starts playing over the monitor and it is as if it is a signal to the athletes who shift from foot to foot where they are standing. I can feel the atmosphere shifts through athletes and spectators who know that this song represents the 5-minute count down. The respect it is given by the spectators is seen as many stop talking, and either quietly sing along or direct their attention towards the athletes. Fire raises up from canisters across the back edge of the beach on the beat of the music as it all becomes real for the athletes. I can feel the heat from the last fire radiating across my face as the presenter quietens the crowd and introduces the Welsh National anthem. The noise is deafening not just from the speakers but from the crowd above the beach and on the sand. Spectators and athletes are singing at the top of their voices and those that are not, are looking all around and smiling at the occasion.

The siren blasts and the professional athletes sprint into the water, five minutes later it is repeated for the age groupers. It takes several minutes for all to be in the water, due to the sheer number the athletes having to walk slowly into the sea. The crowds are playing their part well – cheering and waving until all athletes are in the sea.

As the final athletes make their way to deeper water the crowd calms. It becomes like it was before, groups chatting between themselves, walking to other vantage points and bumping into other people they know. After questions about the athletes in the race the conversations turn to how everyone is structuring their day. It is well known that "*there is an art to watching the race*", where residents and supporters would have learned from previous races the best way to get around the route. People I met also liked to give advice on where to be at different times of the day, feeling proud to impart their wisdom and "*insider's knowledge*" as one of the residents referred to it. The commentators are sharing facts on the race, or updates on the professional males and females in the lead. The sky is brighter now as the spectators patiently wait for the athletes' return. At the sight of the first athlete coming in for the second loop the spectators roar again as the athletes, first professionals then the age-group athletes sprint, run and jog to complete their final loop. Isolation provided by being out in the water means that when the athletes return to the beach "*the noise that hits you is both staggering and uplifting*".

As more athletes enter the water for their second loop the crowd starts to thin as groups make their way to the centre of town. This is a slow process not only are

spectators trying to work through the crowds of people lining both sides of the street but also trying not to get in the way of the athletes who have worked hard to find their pink bags, push their running trainers on and start to make their way through a 1k transition run (unique to only this race) from North Beach to the transition area. This small run has been described as their favourite part of the race by several athletes "*just because of the crowds*".

About 8:30am: Standing near the centre of Tenby, the professional athletes have all past and the main body of 'age groupers' are running past.

Standing against the temporary bollards the smell of bacon and coffee is coming out of the local fire station just behind us. The firefighters are dealing with the building queue of customers and handing out coffee's teas and bacon-butties as quickly as they can. "*It's one of the biggest charity days, we raise a lot of money for the station doing this, we are in a perfect position as all the athletes pass by here, so it's some food for the spectators after the swim, we have loads of our colleagues in the race anyway so it's a nice way to keep an eye for them too*" one of the firefighters tell me.

The athletes run past in small groups and one by one at times. The crowds cheer as each athlete can't help but smile, some wave and some, for the entertainment of the crowd are wearing small Welsh dragon trunk swimsuits. This happens several times and never fails to get the crowd cheering louder, as if those athletes are there only to entertain the crowd! What also gets the crowd going is seeing the colours of local triathlon clubs. Cheering for these individuals would make anyone believe they were famous! The cheering and their names ringing out among the crowd, people on tiptoes just to get seen or to see the local athletes. It is not just the colours that the spectators know, the spectators keep an eye out for the colours because more likely or not they will know the person in them. They shout the names and point out to their friend or family "*look here comes Gareth*", many sound like experts as they check their watch and let others know if they are on track for a good time, or how long they have for the bike leg next. The rural area means that "*it is certainly not six degrees of separation: most people would know four or five people who have done it at least once*".

About 10am: All athletes that made the swim cut off have left on their bikes heading west. The roads are already closed in this direction. Some residents have gone to

move their cars before the other roads closed, some have headed back home for a few hours before the cyclists come past for the start of the second loop. Other spectators find things to do between Tenby and Saundersfoot, cafes, beach picnics etc.

As many of the athletes head for their first loop, Tenby becomes quiet, a stark contrast to the last two hours. The athletes head west where the roads are already closed it's now up to the residents and visitors of those villages to support the cyclists as they pass.

In Tenby, it is a mild morning so people continue to mill about Tudor square (centre of the town with shops located), many people are sitting on the edges of pavements or against walls of shops, there are already queues to get into any food places for breakfast. Residents in and around the local area have rushed off to move their cars before the roads are closed to the north of the town. Walking past an independent coffee shop and there are signs in the window to say they have run out of all food! I head in to talk to the owner, all tables, both inside and out are full. The owner approaches and politely says "*sorry we have completely run out of food, but the coffee is good*". I explain about my research and he responds, "*Oh its brilliant the event being here, it was something to get used to when it first started but we got there, many of the businesses in town are not open on a normal Sunday, let alone open and serving by 5!*" The owner continues to tell me that they always provide quick breakfast ideas that people can "*just come in and grab before the swim starts, we have got into a rhythm now, we know when people will be in and what people are looking for through the morning while the swim is on and waiting for the bikes to come back in*". It strikes me that everyone I talk to outside of a direct connection to the event still knows what is going on, they know the length of the swim, the time taken on the bike route and the marathon. Not only that but when discussing known Pembrokeshire people in the race they know whether they are doing well, what time they are expecting to finish and whether that time is good for them etc, they are invested on many levels not just how it benefits their business. An athlete told me later that in the early days of the event, cafes, schools and even dentists would ask her to bring her Ironman medal in to show them.

About 11am: Pro's passing through Saundersfoot towards Tenby to start their second loop, it will still be several hours before the main body of age-groupers arrive in Saundersfoot to achieve the same!

A couple of us decide to walk back towards Saundersfoot – this is where the athletes will be coming through on the last bit of the first bike loop. This seems to be a popular plan with many of the supporters walking in a sort of convoy, stopping as they see people they know. In places along the route between Tenby and Saundersfoot many groups of people have set up camp with deckchairs, barbeques, and gazebos. This is a new addition this year, it was not seen the year before. The grass bank on each side of the road has turned into a makeshift garden party, some are visitors from other places in Wales and have "*come to watch the race for years*". Some members of the local triathlon club are walking ahead of me, they are stopping and chatting to groups in these garden parties and they share pleasantries and discuss who they know in the race. This is where we begin to see the behaviours of spectators differ – some will try their best to get around to as much of the course as they can to see their athletes as many times as possible. Others are here for a day out, not for athletes particularly. These spectators choose a spot to be for the whole day and venture into Tenby centre when everyone is on the run – bars and pubs are bustling with their own atmosphere by that point.

One of the biggest climbs, known, lovingly as "Heartbreak Hill", rises out of Saundersfoot before the decent into Tenby. On this road, potentially the most famous, the spectators are in their thousands, all standing on each side of the road and create a tour de France-esk walls of support that in places you can only fit one bike through. This is a spectacle in itself as the athletes climb the crowds get louder and louder. The athletes' legs are heavy because of the previous miles, and extremely hilly miles at that! They are slow and grimacing as they look down at the road just ahead of them and only looking up to the top of the hill to see how long they have left, what they also see is hundreds of people at a time screaming and cheering in support of them. At one point a man in a welsh dragon full body fancy dress runs alongside each athlete for about 50 meters as many times as he can before he dives on the grass by his club mates. The athletes are smiling, and thanking everyone as they head up heartbreak hill, turning corners up the hill I see individuals look up to the top and feel

disheartened by the amount they still have to climb but "*the crowds carry you around, they are the best crowds anywhere in the world, anywhere you are around the course you are never alone every little village has AMAZING spectators*" write several athletes. This support is demonstrated throughout the 112 mile bike route at villages across the south of Pembrokeshire.

Watching a middle-aged female competitor who is obviously local by the amount of cheers and name calls she gets all the way up the road from several support groups, she is grimacing, but able to smile and say hi to the people she recognises. She gets closer to the top of the hill, steadily climbing as she puts force through her pedals slowly. Near the top of the road there is a house with two big amplifier speakers resting on their front garden wall. It is blasting upbeat music. It is obvious when she hears the music as the beat of her pedals matches the beat of the music and now she is pushing harder and smiling more as the music, along with the crowd in the garden, are pushing her up the last stretch of Heartbreak Hill. One resident, speaking after the race tells me "*we're pretty much stuck, I mean I am sure if we wanted to go anywhere we could get out, leave early or whatever, but what's the point. We're with our friends and have our cow bells and drum kit… I got this beat going on the drum and they were all cycling up the road, my husband was like 'Laura, just stop now, just stop' and I was like 'I can't', because you can still see them coming up the hill and when they hear the music they are like YES! There was a guy riding past saying 'you're awesome, thank you thank you' and it's just for those people, just for those small moments of the course – if you've got that happening all the way around the course it's got to help hasn't it? It really gives that community spirit, I think that's one of the best things about this community is that they moan about it but they still totally get behind it – they get out and cheer and get the bunting up*".

At the top of the hill is the camp for the local triathlon club, there is no way anyone could miss them, all are dressed in their colours, all with bobble hats or wigs in the bright yellow and blue colours of the kit. This is a common sight for the other seven local triathlon and cycle clubs, as well as many from the rest of Wales and further afield. Many have picnic foldup chairs and rucksacks with food and drinks for the day. There is also a flag tied between a chair and a road post with the club's logo across the front. I also saw this flag hanging out of the window of many homes along the route

and also a bigger flag hung proudly across the railings of North Beach with the phrase "Tenby Aces welcomes Ironman Wales, good luck all", the pride of all the clubs in this area is indisputable. Two members who I spoke to at the Beast approach, I tell them "*I can spot you from a mile off*", they laugh "*we are here every year, so our people know where to find us and know where they are going see friendly faces on their ways around*", I ask them how long they are going to be here "*we'll stay until everyone from the club has come past for the second loop and then we will head in for the run, we are a family – we are here for the day and we don't go down until all of us are through*".

When talking to a wife of an athlete in the race she says "*we know how to watch the race, that's a skill too*" she laughs as she explains her routine for the day that she has been following "*every year for the past seven years*". One of the smaller cycling clubs from the area walks past on their way into Tenby, both groups hug and chat about the course and how they are doing, they sympathise with one of the club members that was injured a few days ago on a training ride and had to pass up his place in the race.

About 3pm: All pro's are onto their marathon, with the first person crossing the line around 4pm. All age-groupers are scattered through south Pembrokeshire, hopefully most will be on their second loop, the cut off time for the bike leg is 5:30pm. Most spectators will be around the roads at New Hedges to see the bikes on one side of the road and the runners on the other.

Back towards Tenby and we pass one of the big food stations. Roughly 80% of the 600+ volunteers covering the event are from Pembrokeshire, as well as adult volunteers there are some children there helping to hold the athletes' bikes, they are delighted about the responsibility and are telling each athlete they are doing really well. Two girls both aged 10 tell me that they got to hold an athlete's bike "*that had pink wheels*". Their mother goes on to tell me that they are there raising money for the local Brownies club and the athlete with the pink wheels was the local hairdresser who has done it the last two years and "*even getting me interested in doing something*" she laughs and continues "*I mean she is just a normal person she is one of us and she is whizzing around this race! It's quite impressive. You feel really proud when you spot anyone you know, and these days you know a whole lot of people.*" This race, although internationally renowned has elements of the community level race – in particular the number of locals that take part and the support by the residents.

I see another resident with a volunteer t-shirt on and ask what they have been up to. "*We were helping with the morning bags getting them all organised for the athletes. It feels like we have been up for a whole day already, we had to be at the transition tent at 4am, so actually parked the car at 3 so we could get back to it and get out while some of the roads were closed! We were raising money for our football club I think we get something like £400 because there was 10 of us helping at different areas. We were put in the transition tent, there was no one really in charge someone just came by and let us know where the bags needed to go, there were three sets of bags that we had to sort and one set had to go in the vans to the middle of the route for the athletes to get their food and everything. But there was no structure at all it could've been a real mess, but we took control between us and took it upon ourselves to get the bags in order so the athletes knew exactly where they were going to be, you'd think after eight years surely they would have some strategies in place.*"

"*That must have taken you ages*" I said, as they explained the way they organised the 3x2000 bags in order of their numbers to save a headache for the athletes.

"*Yeah well, all the athletes have paid a big amount of money to do this event so if I came back after I did the swim, bike and run and couldn't find my bag – that's really bad, you want them to have a good experience, isn't it! Imagine them saying 'oh that Ironman in Pembrokeshire is horrendous we couldn't even get our bag at the end of the day' – we could have easily have done the bare minimum, if we were just up for getting out ironman t shirts*".

I walk slowly back down towards Tenby with several locals, we pass the area again where people have set up camp for the day, in addition to the hundreds of people, is piles of rubbish, empty cans bottles and food package litter the edges of the groups. It is busy and seems a bit chaotic, there were men urinating in bushes and really most were not paying attention to the athletes passing, like it's a background to their day out. One of the locals tells me "*it wasn't like this first year, all the people watching had a reason to be there, because they knew someone doing it or because they were local and interested in what the event was, so everyone was supporting the athletes. But now it has been advertised and more people know about it and know it's this great day out, maybe people are seeing it as a day to go out and socialise and get drunk, other than a day to support the athletes. They may have seen it on telly, and they know it's*

not far away, so they want to be involved on the day, just to experience it." Her friend continues, "*It kinda reminds me of when you go out and watch the rugby in Cardiff and it's that drinking culture again, like we used to have the hen and stag do's the night of ironman is like that again, you'll see when we get back into town*".

The athletes are speeding past on the bike, the closed roads are essential to make it as safe a race as possible. It is worth mentioning here, that for some the day is a real inconvenience, from nurses trying to get around to patient houses for at-home care appointments, to residents that would like to leave their house – either having to plan to leave extremely early in the morning, or "*just get stuck in the house not able to do anything."* There are always some complaints with some signs stating that the village "*wants the race but not the road closures*", specific to another high-profile event they specifically don't like the road closures on a Saturday (a busier day for the county than the Sunday). Some residents go beyond that – one year oil was poured on some of the most dangerous bends on the bike route, leading to sudden diversion of the planned route while the race continued, one of the leaders in the race fell due to the oil and lost first place. There have also been rumours of tacks put out on the road to cause punctures in years pervious. However, the majority of the residents I spoke to all heartly affirm that these people are in the minority.

Most are proud and would do everything to help support the event as well as the athletes. An example was given in an athlete blog, after having a horrendous time with three burst innertubes in the space of 4 miles and then splitting his tyre, "*I had nothing left to sort this out. I needed a new tyre and inner tube. I was in a very bad place. Very bad. I was just about to take my shoes off to start my run to the maintenance tent, 7 miles away, when two guys came cycling the other way. They were both local guys watching the race. They pulled over asking what had happened. I started to explain, but my words weren't really coming out properly. I was really panicking now and was so angry and upset. I was worrying about stupid things. I was thinking of my mum and how she had come all this way to watch me race and now I'm out of it!! I was thinking of all the people who had come to support waiting there for me on my second lap and how I'm not going to be there for them. I was thinking of everyone who had sponsored me and helped raise money for LATCH. The guys must have sensed the state I was getting myself into. What they did with me was amazing. They were so calm, they*

reassured me that everything was going to be ok. They told me to start stretching whilst they took my bike from me. They told me to get some food and drink down me and continued to reassure me. This is exactly what I needed. They had given me things to focus on, which distracted me away from the complete mess that I was. It worked. I did actually start to calm down. I started to regain focus… The men helping me lived in Tenby, so their houses were only a few miles away. One of them left to head back to his and grab some spares, but the road closures would prove to make this a difficult task. The guy that stayed with me (I won't name him, just in case he wants to remain anonymous), phoned his wife. He wanted to speed things up as he could see the mess I was in, and I had already been stationary for a considerable amount of time, I was getting cold and cramp was soon to set in nicely. He asked his wife if she could go into the garage and grab a tyre and inner tube and drive it to us, but again, access was going to be extremely difficult if not impossible! By now I had lost around 90 minutes… There was no sign of his other friend or his wife. I was thinking what I was going to say to Katie. How do I tell her that 'I'm done' 'I'm out'.

Just as I'm thinking this through, the guy starts taking off his wheel. I ask him what he's doing? He said, 'I'm giving you my tyre and inner tube, your race isn't ending here, your finishing this!'. He effectively made himself stranded to help me out!! I could not believe it. I'm not an emotional person, but I actually choked up. This blew me away. What an amazing thing to do. Amazing.

So, we put the tube on, tyre on, wheel back on. Pumped it up. Checked, double checked, triple checked. It looked good!! I had a working wheel back on my bike!! I gave the guy the biggest hug I have ever given a guy, thanked him about 20 times, and he told me to 'get on your way, you got a race to finish!' I said my farewells, and he said that he would see me at the finish line!!" The athlete left the local resident waiting for his friend and carries on with his race, describing his run he says, *"The crowds carry me through again…As I'm running through the town I hear someone shouting toward me 'there's my boy!', it was only the guy who had saved my race and helped me on the bike!! I ran back to him and gave him a massive hug, thanked him so so much, if it wasn't for him I wouldn't have got this far!! He shouted, 'see you at the finish line!'".* This is just one example of a story where the locals go out of their way to help any of the athletes taking part. One local described crashing out of the second time doing

Ironman Wales in dramatic fashion tumbling over a wall into a garden where his bike was in bits and not to mention the blood *"all over the guy's driveway, the guy ended up driving me to beyond the closures to meet my wife, I ended up going back to collect the rest of my bike and thank him and actually we have been friends ever since, meet up for bike rides on the weekends*". A visiting athlete also describes how a local family brought a double buggy down to the hotel where they were staying for them to use throughout their stay for their small children.

About 5pm: Pretty much all professionals would have finished the race, the majority of the age-groupers have started their run, with a last few trying to get into transition from their bikes before the cut off. Spectators are making their way into Tenby either following their athletes or ready for a big night of drinking ahead.

Groups of people are enjoying their day socialising while the race goes on around the roads and lanes, many of the athletes are back or on the last bit of the bike route and hundreds of people are working their way around the four laps of the run route. It's a "*slog*" described by many athletes; the monotony of the route means that they snake their way around cobble street lanes in the town, several athletes have said that they need the crowds more than ever at this point. Down on the harbour road there are supporters lining the streets shouting the names of the athletes written on the numbers or shouting the club names when recognising the colours worn by the athletes. The samba band play and dance as the athletes get closer, naturally altering their step to match the beat the band is making, the athletes smile as they pass supporters politely saying thank you for the support. However, their faces completely change when they see friends and family and their energy levels noticeably rise. When you think of the amount of Pembrokeshire locals taking part in each race it seems like an unfair advantage for those to be given an energy boost like that on every corner of the run or every village on the bike course – the home team advantage. Athletes later tell me that living in a rural town like this mean that small circles of friends develop from local sport teams, schools, work, friends of friends, churches and clubs mean that they know who they will see and where they will be "*we are a tight knit community it's not just people you smile at in passing, you know people well, sometimes that can be a bad thing, but for this it's the best thing, it's the best place*".

As more people join the run the town gets busier, the wife I talked to hours earlier was not wrong when she said it was a skill to even watch the race, you see families and friends planning next spots, feeding children, resting their legs from the average 30,000 steps covered through the day. I see two women, one pushing a double buggy with toddlers in and the other pushing a single buggy with a sleeping child. They steer through the crowds one behind the other, the leader checking behind her every now and then to make sure her friend is still with her. She is holding her phone in one hand while trying to keep grip on the pushchair handle, more than likely checking the app to locate where her loved one is in the race. Most people see them coming and get out of the way or help them lift the pushchairs up the steep pavements, some however don't hear them saying "excuse me" over the noise around the pubs. When heard some take the smallest step out of the way because they still want to talk in their group, frankly, not even paying attention to those running by either, these women deserve an Ironman medal for getting through their own race.

About 8pm: age-groupers are working their way around the marathon, athletes who run the marathon are finishing, but the gruelling miles mean hundreds have still got hours to go. Many athletes choosing to walk the uphill sections, of which there are many. Behaviours of the spectators have shifted – for the first part of the day the majority were for the athletes, now many are for the night out, ignoring runners and getting more drunk.

The pubs are bursting, and their beer gardens now include the roads outside and pavements opposite, early evening the spectators are drinking but try and pay attention to those running by. The smell is just alcohol. I felt for the athletes running past and having to do it four times over. The areas outside the pubs are extremely busy and you can see athletes weaving their way through the crowds who don't notice them, many do however move out of their way and patting the athletes on the back as they jog pass, as time goes by those pats get harder the more drunk the spectators get. I choose a spot that I can see the party around the pubs and the athletes coming down the path towards the pub. By this point the majority of the runners have completed at least one loop and the aches pains and blisters are starting to affect their mood, the athletes are walking to give their feet and body a break but lift their head to see how close they are to the crowds. As close as they dare, the athletes pick up their pace to

jog past the pubs to not lose face, "*you know you have to run past and you are absolutely knackered, and you don't want to look like a dick walking through the town so you know you have to run this bit*" one athlete tells me after the race. The local athletes are spotted quickly, pleasantries exchanged, with spectators hitting them on the back say "*mate you are doing so well, keep going, nearly there*". The athlete says thank you, shifting in as close to a jog as they can muster (on the athlete's arm is three bands collected to indicate that he is on his final lap). Once past the pub the athlete goes back to a walk to let his feet recover.

About 10pm: All athletes still left on the run are walking/ jogging with depleted energy levels and plenty of blisters. Most spectators are drunk, several in fancy dress outfits the streets resemble a bank holiday night out/ new year's eve celebrations. The athletes having to weave through the crowd.

As it gets closer to hero's hour the spectators get louder, not so much from cheering but partying. (It seems to have changed). It is like a normal night out with sporadic men and women jogging past with little attention being paid to them. The atmosphere is chaotic to say the least. To the delight of many spectators in the area, two women and another and her husband are screaming at each other, mostly incoherently, having arguments above the noise of the rest of the crowd. Athletes continue to jog past happy not to be acknowledged and try to mentally get to the end.

As it gets nearer to hero hour, I begin to get tired, and start to get a headache from the noise of the pubs. I decide to walk along the route out of town. It is a welcome quiet, where athletes are seen nodding or smiling at others as they pass, the route here has remarkably less supporters. What is also noticeable is how dark the path is getting. Walking by myself I decide to turn back at the top of the road, making a mental note that I would not like to be running by myself here after completing nearly the full course of the Ironman. Later I was to read a story from an athlete that raised this very issue:

"*On the run the crowd support was unreal! So much cheering and shouting, it was amazing but as it got dark and some of the supporters had left and there was less competitors on course it became a little lonely.*

Having drunken men shout about my bum as I compete in one of the toughest Ironman courses in the world was a low-light and completely inappropriate leaving me feeling a little vulnerable on the course in the dark, not what I had expected at such a large event. However, I kept my shit together, tried not to grind my teeth too loudly and continued on the run, at this point walking, on to the final lap! By this time, it was quite dark, and I was so glad to get out of the madness of the town and just have a nice quiet walk in the dark. I was enjoying watching a bat and maybe even having a little sing to myself, however, the biggest low of the day was yet to come…

When power walking up hill into New Hedges about 500m before the Red Bull turn around point a very drunk man came out of nowhere and grabbed me, trying to make me run up the hill. I felt quite on my own at this point and understandably very tired, I was fucking livid! These and a couple of other incidents on the run I am not going to let put a downer on what was an absolutely amazing day. As I came into the town for the fourth time I was dreading running by the pubs again, but I just blanked it out and got a move on, shuffling along."

I walk back towards the centre of town following the running route, there is a smaller number of athletes shuffling their ways around, there is no chance they won't finish now they know all they need to do is keep moving and they will get to the end. As I get into town I hear the noise from the pubs, it's not a noise of cheering in support of the runners but a normal night out in the town. The smell of alcohol is strong – you can now smell pubs before you see them, there are groups of people standing around chatting or walking to get food or make their way to the finish line. There are groups in fancy dress I see many Welsh dragons and a group of oompaloompas outside different pubs on the way around the course. Those that pay attention to the athletes are heartfelt and encouraging, asking them how long they have left and letting them know they will be at the finish line "*for you*". The closer to the finish line we get you can hear cheering from the crowd similar to earlier in the day, it is loud and celebratory. Just over the top of the noise you hear the commentators shouting athletes' names as they come towards the finish line. You can hear the phrase "*YOU. ARE. AN. IRONMAN!!".* I turn the corner and although dark all around, the finish line is lit up like a Christmas tree, the red carpet stretches 50 meters out and along each side are tiered stands where supporters are packed in to see the athletes finish their day. There are

supporters the whole way along leaning over the banisters to see the athletes. A welcome atmosphere change to the one around the pubs. Here supporters and residents alike are for the athletes – who when turning that corner, whether shuffling or walking, get that hit of energy from the crowd that has been helping them throughout the day. All athletes finish on a run, eyes on the finish line – a sight that they have been picturing through the tough days of training, maybe even since this day the year before when they saw friends and neighbours crossing the line and fancied a taste for themselves. And the cycle continues!

4.3 Summary

This chapter presented a creative nonfiction to illustrate the data collected and analysed as part of the ethnographic process. There are many interesting themes presented that will appear in the discussion chapter of different findings. Most importantly, the data shared through this creative piece of writing shows the importance of the community both supporting as part of the spectators but also in a direct capacity as volunteers. In both senses the success of the events relied on the community in one way of another. The aim of this chapter was to also give the reader a small glimpse of what it is like at both community level and major or signature events. It is hoped that this will help create a contextual picture for the rest of the thesis.

The next chapter presents the results from statistical analysis of the quantitative demographic, EMI-2, and BREQ-2 questionnaires..

5. Results

This chapter reports the results of the demographic and motivation questionnaires (BREQ-2 and EMI-2). The presentation of the quantitative results first is due to their inclusion in the discussion chapter alongside the qualitative findings in the next chapter. Also, following the order of the research questions for clarity. The results add to literature by considering demographic characteristics of the MPSE community in Pembrokeshire and the motivation of participants in MPSE collectively rather than for single event, which is dominant in the literature at present. The quantitative findings aimed to answer the first research question:

RQ1: What demographic characteristics and motivations inform the MPSE population in Pembrokeshire?

5.1 Demographic characteristics

Demographic data are summarised in Table 5.1. Using the Office of National Statistics (ONS) data for 2019 as a benchmark, several portions of this study's sample are overrepresented. For example, employment rate was estimated at 76.1% for May to July 2019 (ONS, 2019). Within this study employment rate (full-time, part-time, self-employed) was 94.7%. Moreover, median household income in the UK was £29,600 (ONS, 2019) whereas within the study population the median household income group was £40,001-£60,000, with the highest percentage of the participants earning more than £80,000 income (21.7%).

Table 5.1

Demographic Characteristics

Demographics	Participants (n= 419)	
	Frequency	Percentage
Gender		
Female	133	31.7
Male	286	68.3
Age		
18-29	73	17.4
30-39	144	27.2
40-49	151	36.0
50-59	68	16.2
60-69	13	3.1
MPSE experience		
First event	32	7.6
Up to 12 months	54	12.9
1-2 years	58	13.8
3-5 years	114	27.2
> 5 years	161	38.4
Household income		
< £16,000	18	4.3
£16,001-£22,000	20	4.8
£22,001-£31,000	43	10.3
£31,001-£40,000	59	14.1
£40,001-£60,000	80	19.1
£60,001-£70,000	79	18.9
£70,001-£80,000	29	6.9
> £80,001	91	21.7
Household composition		
Living alone	36	8.6
Living with spouse/ partner	203	48.4
Living with parents or friends	46	11

Living alone with children	59	14.1
Living with spouse and children	75	17.9
Employment status		
Employed full-time	306	73
Employed part-time	25	6.0
Self employed	66	15.7
At home/ retired	12	2.9
Student	10	2.4

5.2 Motivation

Each questionnaire helped to answer the two quantitative data research questions presented in the Methodology chapter:

- BREQ-2: How are MPSE participants motivated?
- EMI-2: Why are MPSE participants motivated?

Table 5.2

Means, Standard Deviations, Confidence Intervals and Cronbach Alphas for subscales.

				95% Confidence Interval		
		M	SD	Lower	Upper	α
BREQ-2	Amotivation	.1766	.42900	.1354	.2178	.688
	External Regulation	.5352	.80190	.4582	.6122	.829
	Introjected Regulation	2.2145	1.10430	2.1085	2.3206	.788
	Identified Regulation	3.5340	.54538	3.4816	3.5864	.720
	Intrinsic	3.5280	.02788	3.4732	3.5828	.869
EMI-2	Positive Health	4.3366	.75267	4.2643	4.4089	.840
	Enjoyment	4.1510	.86863	4.0675	4.2344	.850
	Revitalisation	3.9969	.86278	3.9141	4.0798	.665
	Strength and Endurance	3.9779	.88259	3.8932	4.0627	.811
	Stress Management	3.7617	1.08237	3.6578	3.8657	.871
	Challenge	3.6416	.93398	3.5519	3.7313	.799

	Ill-health avoidance	3.5515	1.19520	3.4367	3.6663	.798
	Nimbleness	3.4017	1.23295	3.2833	3.5201	.874
	Affiliation	3.2870	1.23791	3.1681	3.4059	.869
	Competition	3.1637	1.29241	3.0396	3.2878	.860
	Weight Management	3.1474	1.29416	3.0231	3.2717	.858
	Appearance	2.6746	1.23903	2.5556	2.7936	.828
	Social Recognition	2.2804	1.32586	2.1531	2.4007	.788
	Health Pressures	1.2069	1.09760	1.1015	1.3123	.657

Table 5.2 presents the findings from both questionnaires. Amotivation (BREQ-2 subscale), Revitalisation and Health Pressures (EMI-2 subscales) scored lower than the accepted .7 in Cronbach alpha (DeVellis, 2012). Nevertheless, Cortina (1993) suggests reliability levels of .6 and above are acceptable in subscales containing six items or less. These subscales have also proved reliable in previous research (Mark and Ingledew, 1997) therefore were included. Additionally, confirmatory factor analysis assessed validity of BREQ-2 subscales using Pearson product-moment correlation coefficient (r) (Table 5.3). Expected strong positive coefficients were seen where subscales represent similar constructs (Intrinsic+Identified) and (external+amotivation). Expected moderate strength negative coefficients were seen between opposing subscales (intrinsic vs. amotivation).

Table 5.3

Standardised between factor coefficients for BREQ-2 subscales

	Intrinsic	Identified	Introjected	External	Amotivation
Intrinsic	1				
Identified Regulation	.584**	1			
Introjected Regulation	.010	.354**	1		
External Regulation	-.315**	-.143**	.292**	1	
Amotivation	-.330**	-.353**	.015	.400**	1

** Correlation is significant at the 0.01 level (2-tailed)

5.2.1 How are participants motivated?

As expected, participants were internally motivated to a greater extent than externally motivated (Table 5.2). BREQ-2 data between demographic groups showed there was no significant difference between men and women. However, Welch's ANOVA showed a significant difference for the Intrinsic subscale scores between age groups (F(4, 93.863)= 10.693, p=<.001). Games-Howell post-hoc test demonstrated the mean score (M=3.92, SD=.21) of the oldest group 60-69 years of age was significantly difference from all other age groups, with Cohen's d showing a medium to large magnitude of difference (18-29 years (M= 3.43, SD= .63), p= .000, d= 0.83) (30-39 years (M= 3.46, SD= .58), p= .000, d= 0.82) (40-49 years (M= 3.54, SD= .56), p= .000, d= 0.70) (50-59 years (M= 3.64, SD= .52), p= .017, d= 0.58). Despite this, it is worth noting that the differences in mean scores between the groups was quite small. Additionally, although no significant difference was observed in any other subscales between age groups, interestingly, all participants from the oldest age group (60-69 years) scored 0 in all responses to Amotivation items.

As a third comparison it was important to look at experience in MPSE as a variable that impact motivation differences. Comparing mean scores across the motivation continuum there was no significant difference found in the subscales of Amotivation, External Regulation and Introjected Regulation. However, athletes with more than five years' experience were significantly different to other groups in both Identified Regulation and Intrinsic subscale scores. In the Identified Regulation subscale, a significant difference was found through Welch's ANOVA (F [4, 129.52] = 4.255, p=.003). Games-Howell post hoc test showed there was a significant difference between athletes with more than five years' experience (M = 3.66, SD = .50) and those with less than a year experience (M=3.34, SD=.58, p=.005) with a moderate effect size (d = 0.57). Additionally, Welch ANOVA showed a significant difference in Intrinsic subscale scores (F[4,125.512] = 6.466, p =.000). Where Games-Howell post-hoc test indicated the group with 5 years or more experience (M=3.68, SD=.45) were significantly different to both, 3-5 years of experience group ((M= 3.43, SD=.62), p=.003, d=0.48) and the group with up to a year's experience ((M= 3.25, SD=.74), p=.001, d=0.80).

5.2.2 Why are participants motivated?

Using EMI-2 questionnaire (Ingledew and Markland, 2008; Markland and Ingledew, 1997) participants identified the top motives for taking part in physical activity around MPSE. Key motives towards participating in these activities and events were defined using the same process as Crofts et al. (2012). The authors used the EMI-2 when studying participation in MPSEs (specifically triathlon). The authors defined key motivations towards events as one which more than 50% of the participants scored 'high' (at least 4 on the Likert scale). Using the same analysis this study found that 79.2% of participants scored at least 4 for Positive Health; 67.5% for Enjoyment; 62.8% for Revitalisation; 58.4% for Strength and Endurance; and 50.3% for Stress Management. Male and female participants highlighted the same top motives as above but in slightly different order:

Female top motives: Positive Health (*M*=4.45), Enjoyment (*M*=4.20), Revitalisation (*M*=4.17), strength and Endurance (*M*=4.09), Stress management (*M*=4.09).

Male top motives: Positive Health (*M*=4.28), Enjoyment (*M*=4.13), Strength and Endurance (*M*=3.92), Revitalisation (*M*=3.92), Stress management (*M*=3.69).

There were some significant differences found between genders for certain subscales but due to the scope of this study and the effect size (Cohen's *d*) being measured as small they have not been included. However, there are four subscales that are noteworthy when comparing age groups or experience groups. Comparing experience levels Welch's ANOVA showed a significant difference between groups in the subscale of Appearance (F [4,130.63] = 4.522, p=.002). Games-Howell post-hoc test indicated that those who were taking part in their first event (*M*=3.40, *SD*=1.10) were significantly more motivated by Appearance than the other groups with more experience with relatively large effect size (up to 12 months experience (*M*=2.61, *SD*=1.31, *p*=.014, *d*=.65); 3-5 years of experience (*M*=2.46, *SD*=1.15, *p*=.001, *d*=.84); 5+ years of experience (*M*=2.68, *SD*= 1.27, *p*=.014, *d*=.61).

Welch's ANOVA was also used to compare subscale means between age groups. In Revitalisation, Ill-Health Avoidance and Nimbleness the mean scores and post-hoc comparisons all indicated that as the participant ages the more important these motives become. Firstly, Welch's ANOVA showed a significant difference between age

groups in the Revitalisation subscale (F[4,79.61] =6.488, p=.000). Games-Howell post-hoc tests indicated significantly different mean motive scores between the two oldest groups versus the two youngest age groups. Group 4: 50-59 years of age (M=4.24, SD=.72) were significantly more motivated than Group 1: 18-29 years of age (M=3.75, SD=.96, p=.008). However, the actual difference between scores was quite small, with a medium effect size (d=.58). Again, although small difference in actual mean score and moderate effect size (d=.48), Games-Howell post-hoc test showed significant difference between Group 4 (M=4.24, SD=.72) and Group 2 (30-39 years of age) (M=3.87, SD=.82, p=.017). Moreover, Games-Howell post-hoc tests of Revitalisation mean scores indicated Group 5 (60-69 years of age) (M=4.54, SD=.57) scored significantly different from Group 1 (M=3.75, SD=.96, p=.003) with a very large effect size (d=1.00). Additionally, the post-hoc test showed significant difference between Group 5 (M=4.54, SD=.57) and Group 2 (M=3.87, SD=.82, p=.010) with a large effect size (d=.95).

Secondly, similar differences were seen in the Ill-health Avoidance subscale mean scores. Welch's ANOVA indicated a significant difference between age group mean scores (F(4,79.609)= 7.618, p=.000). Interestingly, the age groups span a whole point mean score difference between the oldest and youngest groups, with the mean scores increasing with the age of the groups. Games-Howell post-hoc test indicated significant differences between the two oldest groups in comparison to the two youngest groups. Group 4 (50-59 years of age) (M=3.98, SD=1.14) was significantly different from Group 1 (18-29 years of age) (M=3.25, SD= 1.40, p=.008, d=.57) and Group 2 (30-39 years of age) (M=3.32, SD=1.10, p=.002, d=.59). Again, the difference in the actual scores was relatively small. Additionally, Games-Howell post-hoc test showed significant difference and very large effect size between Group 5 (60-69 years of age) (M=4.31, SD=.75) and both, Group 1 (M=3.25, SD=1.40, p=.003, d=.94) and Group 2 (M=3.32, SD= 1.10, p=.004, d=1.05).

Thirdly, Welch's ANOVA indicated significantly different scores when comparing mean scores between ages of Nimbleness subscale (F(4,80.917)=7.139, p=.000). Games-Howell post-hoc test showed the oldest age group scored Nimbleness as a motive significantly higher than any other group, all differences were also a large effect size. Group 5 (60-69 years of age) (M=4.46, SD=.76) compared to: Group 1 (18-29) (M=3.33,

SD=1.27, *p*=.002, *d*=.93); Group 2 (30-39) (*M*=3.31, *SD*=1.19, *p*=.001, *d*=.99); Group 3 (40-49) (*M*=3.30, *SD*=1.28, *p*=.001, *d*= .93) and Group 4 (50-59) (*M*=3.65, *SD*= 1.11, *p*=.0.27, *d*=.76).

5.3 Summary of results

Demographic data in this study showed that most participants were male (68.3%), and the majority of participants were aged 30-49 (63.2%). Most were in full time employment (73%) with nearly half of all participants earning a total household income over £60,000 (47.5%). As expected, participants were more internally motivated with Identified Regulation and Intrinsic subscales scoring highest mean scores.

Interestingly, the top five motives reflected health and wellbeing values – Positive Health (79.2%); Enjoyment (67.5%); Revitalisation (62.8%); Strength and Endurance (58.4%) and Stress Management (50.3%). Notably, age played a role in the importance of certain subscales and Appearance may be a key motive to attract first-timers. Other subscales showed no significant difference or pattern of results.

5.4 Summary

This chapter has presented the key results of the quantitative survey carried out in phase two of the study. Demographic data illustrated the expected ratio between genders, and an interesting result when considering the household income of the participants. The results of the BREQ-2 questionnaire showed, as expected, the participants were internally motivated. However, more importantly, the EMI-2 data showed that the top five key motives for all participants aligned with holistic health and wellbeing. These results will be explained and explored further in the next chapter, where qualitative finding and discussions around each research question are presented.

6. Findings and Discussion

This chapter discusses the results and findings from both the quantitative and the qualitative data. The results and findings can be summarised under each research question:

Research question 1: What demographic characteristics and motivations inform the MPSE populations?

- Result 1: Key demographics of gender and income informs the engagement in MPSE in Pembrokeshire.
- Result 2: Key motives identified by the participants link strongly with aspects of health and wellbeing.

The findings from the second and third research question continue to explore and strengthen the theme of health and wellbeing with use of qualitative data.

Research question 2: What role has the MPSE phenomenon had on the health and wellbeing of participants in Pembrokeshire?

- Key finding 1: Habitual physical activity goes beyond physical health benefits or health-risk avoidance and plays a more significant role in a salutogenic perspective of health and wellbeing.

Research question 3: How do environments and resources in Pembrokeshire contribute to the continued engagement in physical activity?

- Key Finding 2: Interacting resources supported individuals' engagement and continued participation in physical activity.
- Key Finding 3: There is a cyclical relationship/mutual dependence between events and the community.

The chapter is divided into separate discussions exploring each result and finding. Firstly, in answering the first research question the results presented in the previous chapter are discussed. Aligning with current literature interests, this study adds demographic data to continue to explore the type of participants that takes part in MPSEs. Additionally, sub-questions "How are the participants motivated?" and "why are the participants motivated?" are used when discussing the motivation data sets. Secondly, the qualitative data from the interviews and ethnographies were used to

answer research question two. As authors have noted additional research is needed when considering the public health benefits of MPSE engagement. Informed by serious leisure literature the study considers events and training as going hand-in-hand. Thus, the study not only recognises the action of taking part and training for a specific event but engagement as a whole physical activity practice. Salutogenic literature was used to consider the wider health and wellbeing benefits of MPSE physical activity. Thirdly, the use of health resources within salutogenesis also helped answer the third research question. The concept of physical literacy is presented in this discussion to better understand the experiences around physical activity. Finally, the study presents an additional finding from this question given the prominence of the community theme being discussed by all. This finding draws on the fields of event studies and event tourism specifically to consider the relationship between events and the community surrounding them.

6.1 Research question 1: What demographic characteristics and motivations inform the MPSE populations in Pembrokeshire?

6.1.1 Result 1: Key demographics of gender and income informs the engagement in MPSE in Pembrokeshire.

In rapidly growing MPSE discourse this question firstly sought to add demographic information that continues to be a limited area within the literature. As presented in the Introduction Chapter, MPSEs have been dominated by male participants who are between 35 and 50 years of age. Although this study shows similar gender and age data it is important to highlight the rise of female participation. Triathlon Industry Association (2019) showed women now comprise 32% of the triathlon community compared to 26% in 2013. Data gained from Activity Wales Events (Pembrokeshire) (organiser of LCW) also showed massive increase of entries. Since their initial event in 2010 to 2018 (final data point provided by organisers), the rise of women participating has been over 950% in both the marathon event (979% increase) and the sportif event (952% increase). A smaller increase of 749% was seen in the swim event. Due to the growth of these events more generally, an expected rise in male entries was also seen but at a smaller rate (250-500% across the three events). Moreover, in the smaller distance events held the same weekend (half marathon, 10k and 5k races) women are

now either in similar numbers to men (half marathon) or take up a greater percentage of race entrants. In the LCW held in 2018, 65% of participants in both the 10k and 5k races were women. However, these rises were not seen in the longest distance event (taking part in all three of the longest distances across the three days). Indeed, an expected rise of female participants was noted (548%), however, the male participants increased by a staggering 1949%. Although popularity and exposure of the race can be a contributing factor to this rise, the case remains that women only comprised 20% of the total number in the 2018 endurance event. More research is therefore needed to consider the intricacies/complexity of female participation in the sport, especially the longer distance events.

Further research is also needed when considering household income and its relation to participation. As stated in the Results chapter the Office of National Statistics showed the median household income in the UK was £29,600 (ONS, 2019). However, of the 419 people that participated in the survey section of this research 80.7% said their household income was more than £31,000 annually. Moreover, nearly half of the full group had a household income of double the average UK household income (47.5% earning more than £60,000).

There has been very little research evaluating the spending behaviours or class demographics of the MPSE community. However, the literature that has identified this as a demographic interest shows a high education level and middle to upper-middle class income level (Rundio et al., 2014; Wicker et al., 2012; Devine et al., 2010; Case and Branch, 2001). Moreover, as far as it is known, only a few peer reviewed studies have discussed spending behaviours of those taking part in triathlon within their research. Even so, the examples from Germany, Australia and America do agree the high spending rate annually; expected high equipment prices (such as trial bikes); as well as participants expecting to spend this type of money to take part with only a small group concerned with this type of spend (Wicker et al., 2012; Case and Branch, 2001; Chang and Johnson, 1995). The UK Triathlon Industry Association (TIA) has completed an annual athlete survey since 2012. Each year TIA have reported a rise in numbers of people taking part as well as millions of pounds added to the overall value of the industry. The 2016 study reported the industry valued at £417.5m and just three years later the latest reported a value of £475m (TIA, 2019). The reports also note the

average salary of individuals within the triathlon community is £48,900 (TIA, 2016). ONS report a median annual salary of £28,200 for UK residents in the same year (ONS, 2016). Additionally, the two most recent reports also reveal an average annual spend at around £2900 per person each year (TIA, 2019; TIA, 2017). It is not only the equipment that the participant needs through the race, but the TIA reports highlight the growth of the nutrition industry around triathlon and active tourism – travelling to events both nationally and overseas. Even taking part in Pembrokeshire locally, the small events can cost between £10-£20, the triathlons and other popular bigger events can cost between £30 and £80, with the two big signature events costing at least £350 - £800 per person. Consequently, more research is needed to fully consider the issues of the high-priced sport. The evidence at present, and specifically from this study, illustrates an image of potential exclusion where only those that can afford to compete are able to access the many benefits of MPSE engagement. In fact, as current literature has started to highlight the public health benefits of participation, this key demographic characteristic questions whether this is the case if it is not accessible to all.

6.1.2 Result 2: Key motives identified by the participants link strongly with aspects of health and wellbeing.

This first research question also set out to add to motivation literature around MPSE. Two motivational questionnaires were used to answer two sub-questions about the motives of the participants in Pembrokeshire. The first sub question was 'How are participants motivated?' using the BREQ-2 motivation questionnaire. The BREQ-2 data was as expected. The participants that completed the questionnaires were all participants taking part in MPSEs and the questionnaires were filled in at events through the 2019 MPSE season. Therefore, it was not a surprise that identified regulation and intrinsic motivation scored highest in answering 'how are the participants motivated'. The results chapter also illustrate the participants with more than five years' experience scoring higher than other groups for the two most intrinsic level of motivation scores. However, the difference in scores between the groups were very small.

At present literature shows that participants in MPSEs are intrinsically motivated. Further research in motivation should now consider how or if motivation changes

through the MPSE year. Participants have the potential to lose motivation through the offseason, more understanding on how motivation fluctuates through the year or what encourages motivation could help support continued physical activity.

One finding from the quantitative data set of particular interest was the EMI-2 (Ingledew and Markland, 2008; Markland and Ingledew, 1997) data, answering the question 'why are participants motivated?'. Through this questionnaire the participants identified the top motives for taking part in MPSE and physical activity. When considering why they participate in MPSEs as a whole, rather than focus on their engagement with a certain event, participants have listed the key motives as Positive Health, Enjoyment, Revitalisation, Strength and Endurance, and Stress Management. Previous literature using the same questionnaire showed Challenge, Competition and Enjoyment scored highest (Croft et al., 2012; Funk et al., 2011). Due to the previous groups of authors changing the questionnaire there is very little comparison that can be made between the key motives. However, the top five motives found in this study indicates the wider health and wellbeing benefits/outcomes that reflect a salutogenic understanding of health. Health and wellbeing benefits from taking part in physical activity have been identified widely by literature and research (Ding et al., 2020; Blomstrand et al.., 2009). Physical health benefits, such as ameliorating non communicable diseases, have dominated physical activity policies and the focus of international organisations strategies (WHO, 2020; Public Health England, 2016; Welsh Assembly Government, 2009). From a societal perspective these diseases rightly, require such a focus, as the cost have been conservatively estimated at $67.5 billion globally in 2013 (Ding et al., 2016) and £7.4 billion annually in the UK alone (Public Health England, 2019; UK Chief Medical Officers', 2019). However, this focus reinforces the pathogenic perspective dominant across society. Accordingly, the EMI-2 questionnaire has two subscales that focus on these health problems. Examples of questions in both Ill-Health Avoidance and Health Pressures subscales include GP referrals to improve health, avoid heart disease, and prevent illness that runs in family. Both these subscales appear in the lower half of motives with Health Pressures being highlighted the least important across all participants. Whereas Positive Health (e.g., *I want to maintain good health*) reflecting a more salutogenic understanding of health was the most important. Moreover, the other top motives reflect a salutogenic

understanding of resources where participants have highlighted that they take part in physical activity (MPSE) *to help manage stress* (Stress Management); *because I find exercising satisfying in and of itself* (Enjoyment); *because it makes me feel good* (Revitalisation). Arguably, this starts to show that a salutogenic perspective relates closer to the participants' understanding of their health and wellbeing, than worries of health pressures and additional pathogenic perspectives reflected in policy and society at present.

When considering how the EMI-2 tool has been used previously, especially when considering health as a motive, Crofts et al. (2012) felt that the length of the questionnaire was impractical given other tools within their survey. Hence, the authors created an abbreviated version of the EMI-2 combining Ill-health Avoidance and Positive Health and excluding Health pressures all together. Additionally, the authors also altered the questionnaire by removing subscales Nimbleness and Revitalisation. Similarly, Funk et al. (2011: 258) removed the same subscales stating Nimbleness and Revitalisation were not relevant or "not commonly associated with a mass participation sport event context".

The results from the quantitative data set in this study challenges the actions of the authors above. Although Nimbleness does not score in the top half of the motives highlighted by the participants, it was ranked more important than six other subscales. The results chapter also demonstrate that Nimbleness is a more important motive as the participant ages. Therefore, the subscale should have been included in previous studies. Revitalisation scores also shows some significant differences between different demographic groups. More importantly, Revitalisation scores in the top five of the motives for participants' engagement and therefore should not have been excluded in previous studies. Additionally, health subscales should not be combined, to allow for individuals' own classification of types of health motives to be identified. Moreover, where societal concern lies with health risks, potentially due to the expenses and mortality linked to non-communicable diseases, these quantitative results start to suggest individuals are more concerned with a strengths-based view of health. Qualitative data from the interviews carried out with the participants also strengthens this view.

6.2 Research question 2: What role has the MPSE phenomenon had on the health and wellbeing of participants in Pembrokeshire?

6.2.1 Key Finding 1: Habitual physical activity goes beyond physical health benefits or risk avoidance and plays a more significant role in a salutogenic perspective of health and wellbeing.

When discussing health and wellbeing all participants interviewed put more emphasis on elements that reflected health resources beyond those linked to physical health and risk, complimenting the findings of the EMI-2 questionnaire in this study. Therefore, within this finding three key themes were generated:

- Physical activity and MPSEs strengthen psychological health resources.
- Connections made in physical activity can provide social health resources that support a meaningful and manageable perspective to life.
- Nature and the physical environment act as a physical health resources also supporting sense of coherence and wellbeing.

The themes above add new knowledge to the MPSE literature by presenting the additional public health benefits and health resources accessed by the participants from taking part in MPSE physical activity.

From a salutogenic perspective health is more complex and the use of health resources contribute towards an individual's (or group's) sense of coherence which lies at the heart of the theory (Antonovsky, 1979). A strong sense of coherence is where an individual feels their life is meaningful, comprehensible, and manageable (Antonovsky, 1979). Eriksson and Lindstrom (2006) also demonstrate that sense of coherence is about the ability of the individual to identify internal and external resources and use them to promote health and wellbeing.

Previous literature has demonstrated the relationship between physical activity and sense of coherence (Wainwright et al., 2007; Wainwright et al., 2008; Bronikowski, 2010). The relationship has been researched from both directions. Many studies have demonstrated that a stronger sense of coherence leads to more frequent and higher engagement in physical activity whether dealing with health issues (such as myocardial infarction and type 2 diabetes) or not (Mutikainen et al., 2015; Myers et al., 2011; Lovlein et al., 2017; Nilsen et al., 2015). Moreover, authors such as Read et al. (2005),

Endo et al. (2012) and Kekalainen et al. (2018) have also demonstrated the role of physical activity engagement as a health resource to improve sense of coherence. That said, all authors consider physical activity as the action and its role in decreasing the risk of non-communicable diseases. This literature identifies the engagement in physical activity as a health behaviour leading to a positive health orientation – if they take part in physical activity, it should show that they value positive health behaviours. However, the participants in this study present a broader perspective of physical activity not only seeing it as the bodily action but as a complex social practice. Through the interviews, participants made it clear how they used physical activity as a resource for health-risks but additionally discussed other health resources they had access to because of their engagement in MPSE physical activity. This not only supports previous literature but furthers the understanding of physical activity's role in health and wellbeing – where physical activity acts as a sort of catalyst for further health resources and therefore wider health and wellbeing benefits. When discussing these resources connections to sense of coherence was also seen through all the answers. Obviously, participants do not know what sense of coherence is but, in their answers, their perceived health understandings reflected how the health resources supported the comprehensibility, manageability, and meaningfulness they see in their lives.

The additional health resources highlighted by the participants also reflect descriptions, classifications and elements within previous wellbeing literature and therefore categorised in this finding under the labels identified by Dodge et al. (2012) (psychological, social and physical resources). This further supports the point raised in the literature review that salutogenic perspective of health aligns more efficiently/effectively with wellbeing than the pathogenic perspective seen in most policies. The individual themes are discussed below.

6.2.1.1 Physical activity and MPSEs strengthen psychological health resources.

As stated in the literature review, psychological resources such as positive emotions and affect, self-efficacy, self-esteem, and low anxiety can help cope with life's challenges and help stabilise wellbeing (Dodge et al., 2012; Hendy and Kloep, 2002; Iden et al., 2017; Seligman, 2011). Specifically, positive emotions have been seen to "build enduring personal resources" (Fredrickson and Cohn, 2008, p. 782), such as cognitive, psychological and social (Fredrickson and Joiner, 2002) and has "higher

levels of wellbeing and functioning over time" (Fredrickson, 2013, p. 25; Fredrickson and Joiner, 2018).

When the participants highlighted health and wellbeing as a reason to take part, several talked generally about the importance for their mental health. Rachel says that for her taking part in physical activity is "*more for the mental side of things than the physical*". Several others discuss "*a good headspace… and mental boost"* (Jo); "*it clears your mind*" (Emma & Trevor). Further detail is given by many participants where specific mental health challenges are alleviated from taking part in physical activity. Geri, one of the first females in Tenby to complete the ironman and now does trail running, states "*my mind is more settled if I have trained, I get really quite anxious, so it helps*". Tina, who can only take part in swimming events due to a disability, adds "*for me I think it helps my wellbeing… I went swimming on Tuesday for the first time in two weeks, it's easy to get out of the habit of doing it, but for me it really helps my mental health*". In fact, supporting wellbeing literature (Dodge et al., 2012), Louise, who is training for her first Ironman Wales, discusses challenges she has faced where physical activity has supported her psychological resources "*my dad passed away this year so going through that but trying to self-help because there is a lot of research around that sort of thing, and that's why I think I was in a dark place when my back went- I would use exercise as a mental release, even before my dad passed away, but I need it more and more*". This psychological resource links strongly with manageability element of sense of coherence. Described as the "instrumental" component, manageability refers to how individuals perceive available resources are able to adequately cope with challenges (Antonovsky, 1987; Eriksson and Mittelmark, 2017; Eriksson, 2017). Examples from the participants above demonstrates how MPSE physical activity was used for this purpose.

In addition, other participants describe how taking part in physical activity strengthens the psychological resources that supports them dealing with daily stressors and demands. Emma noted "*I love doing it because it makes me feel refreshed, because I haven't done anything for a week I feel really rubbish, and if you haven't been for a week its bound to affect your wellbeing*". Rachel also links this to her premenstrual syndrome emotions stating, "*when I am on my period I don't do much and my mood is much worse, whereas if I do some exercise before and straight after I can manage it*

much better and I don't take it out on other people, it's a real noticeable change in my personality if I'm not doing any exercise". The wives of two male participants notice the mood changes and encourage their partners to run to boost positive emotions. Ross admits "*I get grumpy, especially if I planned to go for a run … [and family commitments mean he is unable to] … I have to do my bit at home, but she can see it as well, sometimes she will say 'just go for a run, you know, and I will deal with these [children]'… because I am a different person when I come back, I've done my 20 minutes and I am a different person around the house, not moping around and grumpy for the sake of what was a 20 minute run*". Trevor also attests to this "*if I can't go for a run for a week I am a moody-old-whatnot but when I go for a run it's like a release, if I've got stuff to do or I am really stressed the wife always makes me go*".

This theme demonstrates that physical activity and the psychological resources that can be accessed from engagement allow for a stronger manageability component of sense of coherence. In turn, this also supports the *upward spiral theory of lifestyle change* (Fredrickson, 2013; Van Capellen et al., 2017) where, positive emotions experienced in training and participation in MPSEs trigger "wanting and seeking" behaviours to further embed habitual positive health behaviours, in this case physical activity and exercise, causing the upward spiral.

Further to the quotes above, participants continually demonstrated the role of their social relationships in supporting their engagement and understanding the importance of physical activity as a health resource and providing other health resources for the participant.

6.2.1.2 Connections made through physical activity can provide social health resources that support a meaningful and manageable perspective to life.

Social support has been highlighted by key authors in salutogenic literature as a vital health resource (Antonovsky, 1987; Antonovsky, 1979; Eriksson and Lindstrom, 2008; Eriksson, 2007). Social support and sense of belonging has been positively associated with Subjective Wellbeing (SWB) (Elgar et al., 2011; Glover and Parry, 2008; Wang and Wong, 2014). Seligman (2012) also identifies positive relationships as an integral characteristic of wellbeing.

Participants in the study discussed the importance of social support, in relation to this finding, different supports were highlighted to have health and wellbeing benefits. Participants discussed the importance of supportive family and friends in their participation – understanding their training commitments (Ross and Trevor) or encouraging and supporting them to keep going (Howard). Moreover, several identified the connections made through taking part in MPSE physical activity supporting their health and wellbeing. Jason gives the example of his friend, "*he and I have jobs that sort of get to you, because I am in the military and around PTSD, and he is a first responder, we talk a lot about that, when we go out on our bike rides it's like we can self-counsel each other as well because of the shit we have seen, so the mental health aspect through sport is that way too, it should not be underestimated*". Both men have completed multiple Ironman Wales races, Jason tries to beat his time each year and Matthew, the friend, is happy to just finish but is one of only ten individuals that have completed all Ironman Wales events since 2011. This particular example demonstrates that the social resource assists the individuals to cope with stressful challenges in their daily lives also seen in previous literature (Cohen, 2004).

Additionally, research has found that social support can be positively associated with outcomes of mental health problems (for example depression and anxiety) (Wang et al., 2018). Wang and colleagues (2018: 166-167) also saw some evidence that "greater loneliness is associated with more severe depression and anxiety symptoms and poorer remission from depression". Certainly, providing social support for these reasons are extremely important for health and wellbeing. Supporting this, Rachel starts, "*I felt really isolated, things got really dark and horrible*", she was petrified of the water, but her new friends were doing a swimming event. When asked why she went along with it she said, "*because it frightened me and I wanted so desperately to be part of a group of friends again and that kind of outweighed the 'oh shit I can't do it'… it was something to get out of the door those couple of hours while our children were in nursery we would run*", her and Tina talk about the friendship now beyond events and training, Rachel says "*All the training and stuff is great but in between we have messenger chats now and the friendship has developed from a couple of exercises to be really good friends*", Tina agrees, continuing "*that's the best thing I think and from my wellbeing point of view it's much better now than rewind like three years ago*

when I didn't really see anybody and now there is always messages flying backwards and forwards obviously we see each other at school often but we also help each other with kids, like 'I'm running late can you grab mine for me', it's just really nice and 'oh I'm stuck I need a lift to Narberth… yeah I'll take you". This evolution of friendship has also been seen in other events literature (Robinson et al., 2014; Shipway et al., 2013).

Sense of coherence has been presented as the key construct of a salutogenic perspective of health (Antonovsky, 1987; Antonovsky, 1979; Eriksson, 2017). Moreover, the three dimensions reflect the interaction between the individual and the environment i.e., how they use the available resources to better cope with challenges and support healthy living. Accordingly, the physical environment, in this case, the environment in which these activities take place, was discussed and potential health resources were raised by participants.

6.2.1.3 Nature and the physical environment act as a physical health resource.

When participants generally discussed the physical environment and training around Pembrokeshire, several talk about a "*sense of freedom*" (Nicole, Jo, Trevor and Hannah). Jo goes further stating "*it gave me the actual space I needed, because when I was in London I was like a caged animal and I needed that space and time on my own*". Hannah also weighs up the differences when given the opportunity to move away, "*but this run is food for the soul – you wouldn't get this in California, you'd get the sunshine by you wouldn't get these views, this is my happy place, get out and straight away your spirit is lifted… you see some beautiful things you wouldn't see in a city environment, its proper healthy living*".

The role of nature in improving mental health and general wellbeing has already been well established in research (Thompson Coon et al., 2011; Rogerson et al., 2020; Pretty et al., 2017). Thus, the characteristics of MPSEs in Pembrokeshire arguably already present potential mental health benefits providing high quality blue and green exercise opportunity. That said, Lawton et al. (2017) question whether it is the immediate environment that affects mental health and related conditions. Rather, the authors demonstrate the relationship an individual has with the natural environment is key. Several participants in this study support this finding and links the nature-connection to their own mental health, coping (salutogenesis) and psychological resources. Both David and Ross talk about running without music "*I just love the sound of the*

countryside" (Ross). David adds "*I don't use music; I wouldn't run with music… if I am out running the coastal path I want to be out listening to things. To me it is about being in the environment*". Geri without finding a more suitable phrase suggests "*it's more of like a… I don't really want to say spiritual, but spiritual I suppose*". Natalie agrees with this, "*I think it's a mixture of the elements, it's a very sensory aspect. The feeling of the wind on you, the rawness of the elements, it's kind of like it makes you feel awake… being part of nature and connected to that. Just the beauty of it and feeling small within that, being a part of it*". Interestingly, she goes on to demonstrate how nature-relatedness as a physical-psychological health resource influences her mental health and coping (salutogenesis) "*Yeah, I think for me now and always it's… if I am feeling stressed, being able to get out for a walk or a run, being in nature, the mixture of the physical movement and being out in nature centres me. It has always been one of my coping mechanisms. And I think even from a young child, being outside made me feel calmer. But also, not necessarily just sitting outside. It's a mixture of the physical, being able to run or move in it*". This final point deserves further research considering the embodied movement connection to nature as she also credits this to her enjoyment of events "*it made me fall in love with being outdoors and active even more*".

Importantly, Kloep et al. (2009) warn of the dynamic nature of wellbeing resources and challenges, explaining that in some situations, resources can become challenges for many. Although many of the participants discuss health and wellbeing benefits gained from MPSE physical activity, such as cycling, a few participants discuss the growing issue that comes with the popularity of MPSEs in a small rural area. For example, Sara states that she takes part in cycling "*for fitness but one of the most important reasons for me is wellbeing and mental health and a time to relax*". However, she goes on to show how this has been challenged "*these days I don't really like going out on the bike much anymore, because I am another cyclist on the road. I'm more anxious, I would now always choose to go running over cycling now because I can relax and enjoy it, I always feel anxious on the bike now, and when we do go, I make sure we go out super early to try and avoid traffic*". Jo also explains "*I just planned to carry on cycling, but the phenomenon of cycling is getting more and more dangerous, the bubble will burst and eventually someone will die, and it will probably be me because I cycle about 500 miles a month and the amount of abuse you get on the road now is unbelievable,*

unbelievable!". For salutogenic literature this presents an important research topic where General Resistance Resources (GRRs) may mutate into issues that challenge the position of the individual on the health ease/dis-ease continuum. As yet the nature of general resistance resources has not been fully considered in salutogenic literature. The finding above call for further research in the dynamic nature and use of resources through physical activity as well as more generally.

This also raised question for the supportive environments of Pembrokeshire. As the Introduction chapter has demonstrated there is a considerable number of Pembrokeshire residents engaged in some type of MPSE physical activity. It was therefore important to research the elements and resources that have supported the high engagement in the area. In answering the second research question: *How do environments and resources in Pembrokeshire contribute to the continued engagement in physical activity?* the following key finding presents resources that support physical activity engagement. These two findings align the role of physical activity in a salutogenic understanding of health and wellbeing.

6.3 Research question 3: How do environments and resources in Pembrokeshire contribute to the continued engagement in physical activity?

6.3.1 Key Finding 2: Interacting resources supported participants' engagement and continued participation in physical activity

Literature has demonstrated the complex nature and importance of social processes beyond the influence of psychological and individualised attitude and choice to engage in physical activity (Sallis et al., 2006; Holman et al., 2018; Blue, 2017). An ecological perspective guided the data generation process when interviewing the participants, allowing loose themes during the questions that considered the role of environments, and elements within them, towards physical activity. Accordingly, a salutogenic-style understanding of this health resource offered further insight into the composite nature of habitual physical activity. In salutogenesis literature Antonovsky (1990: 76) shifts health questions such as "what makes people have a heart attack? Develop cancer?" to questions such as "What makes people healthy?" and "What moves people toward the health end of the health ease/dis-ease continuum?". Similarly, 'what keeps people

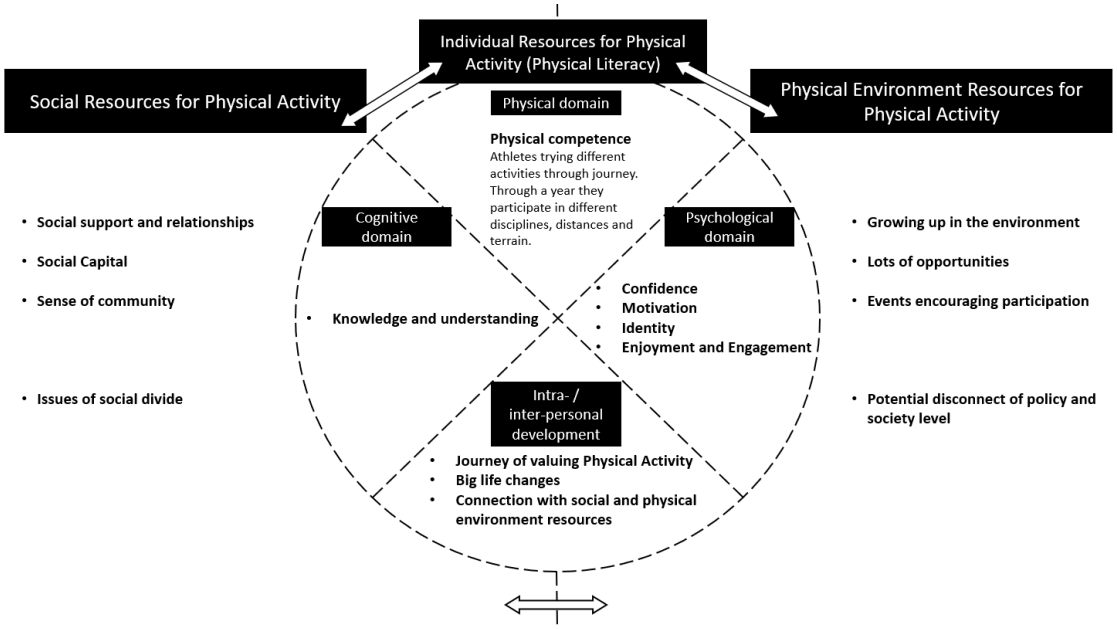
participating in physical activity?', or 'what resources support and promote daily, weekly or lifelong physical activity engagement?' are useful questions for the same reasons. An ecological perspective of environments and a salutogenic understanding of resources allowed for the phenomenological experiences of the participants to present a first-person perspective of the phenomenon in Pembrokeshire while still tied to appropriate research.

The participants in this study discussed many resources that supported their engagement in physical activity in Pembrokeshire. Analysis of the data identified three key categories of resources that supported individuals' participation in physical activity around MPSEs – individual, social and physical environment. Figure 6.1 illustrates the three categories as well as the resources identified by the participants. The structure of the model demonstrates the interacting relationship between the individual and the wider environments (both physical environment and social). The dashed lines framing each category and arrows between them demonstrate the interactive nature. Participants also discussed the presence of resources through different aspects of their physical activity experiences, both past and present. Therefore, the concept of physical literacy was used as a lens, firstly, because it allows the consideration of integrated and holistic domains of the individual concerned with physical activity as expressed by the participants. Secondly, participants discussed the importance of their past physical activity and how these experiences, although demonstrating shared similarities, were unique to each individual participant. This aligned strongly to Whitehead's (2010) philosophical perspective of physical literacy, underpinned by phenomenology and existentialism. A 'Whiteheadian' definition of physical literacy highlights the physical, cognitive and psychological/ affective dimensions of an individual that support physical literacy development, and therefore lifelong engagement in physical activity. The resources raised by the participants in this study reflected the elements and dimensions included in the widely used definition of physical literacy (IPLA, 2017; Whitehead, 2019). Therefore, physical literacy is presented as an individual resource for physical activity and discussed first in this section. Notably, there has been very little physical literacy research carried out within the adult population, this finding contributes to the literature in this way. Additionally, the interaction between the individual and their environment or context has been discussed widely by physical

literacy authors, agreeing that a supportive environment and context is vital to help foster physical literacy (Whitehead, 2010 and 2019; Taplin, 2013; 2019). More recently, the social domain has been considered more deliberately as an additional domain of physical literacy (Keegan et al., 2017). Although Whitehead (2019 and 2020) and others (Taplin, 2013; 2019) continue to place these elements within a person's situation and context, Keegan et al. (2017) and Keegan et al. (2020) have presented an alternative definition incorporating the social domain. Analysis of the data in this study demonstrates the explicit role of social resources in supporting physical activity engagement. In doing so, the study adds to the physical literacy literature again by firstly, exploring the interacting relationship between the social domain and the individual domains (cognitive, physical and psychological) of physical literacy and secondly, exploring a specific element – Connectedness – identified by Keegan et al. (2017) and Keegan et al. (2020). 'Connectedness' as an element of the social domain of physical literacy considers the relationship between the individual and their community as well as how the individual interacts and uses their natural and built physical environments. This discussion demonstrates how this element reflects the use of resources in health literature and in doing so, suggests the appropriate connection made between physical literacy and health (Cairney, 2019).

Figure 6.1

Model of interacting physical activity resources



6.3.1.1 Individual resources.

These resources, discussed by participants, were further sub-categorised with the use of three of the four domains of physical literacy presented by Keegan et al. (2020), namely, psychological, physical and cognitive domains. The authors highlight elements within these domains that contribute towards physical literacy.

All domains were discussed by the participants presenting physical literacy as a resource for physical activity. Within the psychological domain, Motivation, Confidence and Engagement and Enjoyment were all discussed by the participants. Moreover, when critiquing Whitehead's (IPLA, 2017) widely used definition of physical literacy, Keegan et al. (2017) questioned the specific use of motivation and confidence in the definition over other attributes of the psychological domain. Consequently, Keegan et al. (2020) have identified several additional elements of the psychological domain that support physical activity participation; Enjoyment and Engagement being one example. The use of domains over specific attributes, or the dominance on different elements, allows for the holistic nature of the domains to be understood and further elements or resources to be identified. For example, in this study the participants also discussed the influence of identity on their commitment to physical activity. Further, elements of the physical domain and cognitive domain are discussed and presented as key

resources for physical activity. Moreover, the interacting, and in some cases, interdependent nature of the domains and resources was also made clear from the participants' data.

Due to the holistic nature of physical literacy, it was important that this interacting feature of the domains and resources were present in this discussion and therefore guides the next section, starting with the psychological domain and its resources and moving to others as they connect and merge. Thus, several impressions of confidence were identified by all participants. For example, in taking part in MPSE physical activity, Natalie describes "*it's a challenge. But for me it's that sense of being able to say 'No! You can do it!' and just keep pushing myself and see what I can do*". Finding confidence in these events and activities also led to many participants talking about their identity playing a role in supporting their physical activity participation. As Jo explains "*I was good at it, very good, very quickly, and I would win the [events] I was doing, I would win a sportif and be the first lady home. I was strong and that helped. When you're good at something you feel good… that was my identity… when things happen, you sort of question who you are and what defines you – I had nothing to define me, I had no parents now, I wasn't living in London and didn't smoke… I was entering a new comfort zone because I was doing [MPSEs]*" she continued "*I can still hold my own now, especially for my age, and I can't have children, so it fills a gap*". All women participants as well as some of the men discuss how their confidence grew over time. Many of the women participants found their confidence in unofficial, informal community running clubs (Emma and Louise), or organised clubs and inclusive events such as parkrun (Nicole). All participants discussed how, over time, their confidence developed to try their hand at many different types of events and activities. Louise gives an example of this, starting at "buggy-fit" and enjoying community running clubs with women in her area, then taking part in Go-Tris in the area and increasing to longer triathlons until this year – "*Yeah, I am training for Ironman Wales 2020, I always said I wouldn't do it… there was a time where I thought I couldn't do it*". This journey of confidence and development is also seen by those who decide they have reached their limit in certain types of events and move to try alternatives. For example, both Geri and David talk about doing a lot more trail running after their years of Ironman, "*I'm doing trail running now and I'm actually doing my first CaineX with the dog, doing that*

in January which I am really looking forward to" Geri explains. After an injury stopped David competing in his tenth Ironman this year he discusses moving on "*I'm going to focus on ultra-running and swim/run events now… for me it's like a progression… now that the hold of doing 10 in a row is gone, which I was gutted about, but you move on*". Louise describes the dynamic nature of confidence which was also reflected in other participants' stories, "*I think it's waves of confidence, in your life things can be happening and you [your confidence] goes up and down all the time*".

It is widely understood that domains of physical literacy are interacting and holistic (Whitehead, 2010; 2019; Keegan et al., 2017; Edwards et al., 2017). Although the participants above are discussing their confidence the data also demonstrates the underlying, and assumed, importance of the physical domain and physical competence. It is likely that, even though a MPSE season, participants will take part in different events of different distances, terrains, and disciplines as well as throughout their serious leisure careers. The physical domain, specifically physical competence, has dominated physical literacy research and some definitions of the concept have been exclusively focused on the physical (Edwards et al., 2017; Sheehan et al., 2011; Lundvall, 2015). The dominance of most research taking place in education settings has clearly presented the importance of the explicit focus on the physical domain of children and adolescents in learning vital skills like fundamental movement skills. However, the data provided by the participants here, presents a different picture for adults. Still an essential resource, the physical domain seems to have a different relationship to other domains and participants only consider it consciously when there is an issue. Another example of its implicit presence was identified when participants discussed what Keegan et al. (2020: 29) refer to as the "Engagement and Enjoyment" element of the psychological domain. The authors explicitly referencing Csikszentmihalyi's (1975; 1997; 2014) sense of flow, where challenges, met with equal level of ability (such as physical competence in physical activity) flow is experienced. Phrases used in the physical literacy standard (Keegan, 2020: 29) describe it as "experiencing inner calm" or "experiencing a slowing down of time". Several participants describe the feelings of flow especially in their training. Geri discusses going out to deal with her anxiety because she gets "*a lot of calm from running*". She also discusses losing track of time, "*I put my trainers on, it was dusk, and I just started*

running, next thing I know it was pitch black- was just lost in it!". Another example, Trevor discusses fell running, "*I could have finished my run and look at my watch and I've been out for two hours when it feels like I've only been gone twenty minutes*". In fact, when discussing fell running participants also discussed resources within the cognitive domain. For example, within sense of flow Csikszentmihalyi (2014) discusses the importance of not only skill (physical domain) but focus, Trevor identified this in the downhill running section, "*I love downhill running, it's exciting, the rockier the better, it makes your brain focus… if you're not focusing on where your feet are landing you're going to fall*".

Moreover, the interrelated and interdependent nature of the dimensions highlighted by Whitehead (2010; 2019) and Keegan et al. (2017; 2020) are also presented when participants discuss open water swimming and the role of the individual domains, namely physical, cognitive, and psychological. David confirms, "*some people are quite nervy but because we have a diving background we respect the sea, we know how to relax in the sea in a wetsuit and just chill a bit*". Matthew also discusses the knowledge of how to swim in "*open water is completely different from the pool*". This is important considering four of the male participants interviewed signed up to Ironman Wales before they could swim, therefore needing to explicitly focus on improving the physical domain, all took part in intense swimming lessons. For three participants this has worked well, and their confidence and physical competence has helped them complete multiple open water events. However, for Howard the challenge of open water swimming currently outweighs his ability/skill. In sense of flow terms (Csikszentmihalyi, 1997), he is experiencing anxiety and worry. Howard discusses taking part in his first triathlon - "*I jumped in the water, I was feeling quite confident and then when it came to start swimming I couldn't swim, couldn't put my head in the water and I just couldn't swim properly… I was mainly swimming in the pool, had done nothing in any lakes or open water so that probably played a pretty big part in the mental block. The race had started, tried to swim a bit and started to panic, the more I was panicking the worse it got*". He "*persevered with breaststroke*" and managed to get around and onto the bike. In the following LCW, "*I got to Long Course walking down North Beach and I saw how far the first buoy was away and completely panicked – I just stopped and said to my wife I don't think I can do this*"- getting around with the

use of breaststroke the same anxiety was present. After more lessons he completed Ironman Wales and wanted to do an event abroad, he signed up to the popular half distance in Marbella, "*it was like [first event] all over again! I tried to push myself round and I just couldn't. The cut off was an hour and at 40 minutes I hadn't even got halfway so as much as I didn't want to I had to put my hand up and say please tow me back in*". He is still in the process of improving his physical competence and knowledge and understanding in swimming years later. Howard's experience sheds light on the complexity and individuality of physical literacy journey (Whitehead, 2010; 2019; Taplin, 2013; 2019: 239; Keegan et al., 2019). When discussing the notion of "cradle to grave" or lifecourse (whitehead, 2010; 2019; Keegan et al., 2020; Public Health Wales/Sports Wales, 2017) several authors present the idea that individuals progress through the stages of physical literacy framework (IPLA, 2019; Keegan et al., 2019) in succession, starting at the first stage in early childhood and becoming more secure as the individual ages, ideally reaching the most stable stages by adulthood (Taplin, 2019: 239; Whitehead, 2019: 77). That said, authors have also demonstrated the dynamic nature of physical literacy, using the journey metaphor (Whitehead, 2010; 2019; Taplin, 2013; 2019) and life history method (Taplin, 2013; 2019). Both these show that a person's physical literacy journey will be uniquely theirs, influenced and shaped by interactions with the world around them (Taplin, 2019). Importantly, the metaphor of a journey shows direction, choices of routes with potential threats to progression and diversions along the way, reflecting reality of the lived experience (Taplin, 2019). Life stories from participants support this notion. For example, valuing physical activity came much later for Emma, as expressed in her comments on PE activities at school – "*I hated it… you know when you think you're not very good at anything… and I was always the chubby child… everyone was faster*". She goes on to say that her most enjoyable physical activity was around primary school age, after that she did nothing until starting to run seven years ago.

Moreover, all participants discussed the dynamic nature and nonlinear nature of their progress and sometimes hindrance or decline in fostering a positive attitude to physical activity and habitual engagement. Interestingly, at the age of seventeen one of the participants presented a secure image of physical literacy – surfing whenever he could with his friends and competing at international swimming events. However, he

revealed the influence of filial duty, he felt forced by his mother to participate, he goes on to explain "*it wasn't an option not to go [high-level swimming]… I was totally burnt out from it all, in uni I stopped everything… I think I had a bit of a mental breakdown about it all really – drugs, alcohol, smoking – felt like it was suppressed all through school – things were out of bounds, and rebelling was squashed through sponsorship and then the leash was cut, and I could do and try anything I wanted*". Consequently, he valued the purpose of physical literacy during later phases of the lifecourse. The story from Jamie is also interesting because if each attribute or domain were considered separately during the time he "stopped everything" Jamie's physical competence or his physical domain would score high if measured due to his ability. However, in other attributes or domains he would have experienced a disconnection from his potential and therefore would not be in the more secure stages of physical literacy. This questions whether some of the measurements or assessments of physical literacy currently being used are doing a disservice to the concept as a whole. Other participants discussed specific life events that influenced the progress of their physical literacy journey, supporting Taplin's work (2013; 2019). Tina and David discuss injuries and disabilities on their physical domain; Melanie, Louise and Nicola discuss how having children and their body changing influenced their psychological domain negatively around physical activity. Additionally, Nicola, Laura and Gary talked about significant life events kick-starting their participation in physical activity, Gary shared "*my wife passed away from MND, five years in November. My daughter told me I was getting really fat on the boxing day, I didn't say anything at the time but obviously I was gutted like. So I started to go to the gym*".

As Standal (2015: 19) states, phenomenology is not about the subjective experiences of a phenomenon, but "it seeks to develop descriptions of experiences that can be inter-subjectively validated – that is, description of experiences that others could plausibly have". These "meaning patterns" can share understandings of the lifeworld and phenomenon (Standal, 2015: 37). The meaning pattern generated from the data above suggests the dynamic nature of physical activity experiences through life phases of the physical literacy journey, especially adulthood. Taplin (2019) also notes another pattern that there are other issues through a person's physical literacy journey that would threat continued engagement in physical activity. This is also identified by

several participants in this study and therefore adds new considerations to the literature. Many participants discussed the presence of frequent stressors that impacted their engagement in physical activity or secure physical literacy. As already identified Louise discusses her confidence fluctuating in waves, others identified stressors that prevent them prioritising or allowing them to give time to exercise. For example, Rachel and Tina discuss the issue with summer holidays looking after their children, especially for Tina as due to her disability she can only swim, "it's not really about wanting to train though, it's about the logistics of training and everything, because as soon as it gets to school holidays you can't do anything… I can't go and bash out a mile in the pool when I have two five year olds and a nine year old, so I lose out as soon as it gets to school holiday". Others have discussed work issues (Ross, Howard), injuries and wanting something new (David, Jo, Geri), pressures and fatigue and issues with motivation (Tina, Robbie, Jon, Jason).

As has been demonstrated above the interacting nature of the domains and resources have supported the habitual physical activity participation in participants in Pembrokeshire. But if there are stressors that influence this engagement, especially frequent daily stressors, it is vital to consider the resources that helps support and bolster physical literacy as a resource for physical activity.

Whitehead (2010; 2019) and Taplin (2011; 2019) have already demonstrated that the environmental factors play a vital role in creating the person as the individual interacts with their surrounding context. It is this two-way relationship which reflects salutogenic perspective, where Sense of Coherence is the individual's ability to utilise the surrounding resources to support their health. This ability is needed for a person's engagement in physical activity also and further strengthening physical literacy due to the stressors identified. For example, when considering education settings, due to the opportunities in physical education, structures can provide a context where the environments can be shaped to foster and encourage physical literacy development for children. In adult phases of the lifecourse there is less consistent structure, and as such the environments become complex and overlapping. Participants in this study discuss many different resources that help their cognitive domain or knowledge and understanding, from joining clubs (Gary, Emma, Ross); watching Netflix documentaries (Jamie and Louise) and asking more experienced friends (Tina, Laura, Matthew).

When facing stressors to their physical literacy and physical activity engagement the participants in this study demonstrate how resources in their social and physical environment bolster and create other elements that support physical activity.

6.3.1.2 Social Resources.

Two main uses of the social domain were identified in the data from the participants in this study. Firstly, the participants used the social domain to bolster the individual resources identified above. Rachel, along with others, discussed friends motivating her through tough runs and to get out and run in the first place for training "*it would really hurt one day and you wouldn't want to push yourself, whereas when I was running she would get a different wall to me and we would get each other through it and I didn't want to fail because I would be letting her down*". Further, many participants discussed similar support systems such as clubs and training with club members. These connections have been shown to support the cognitive domain (above) in addition to the psychological and physical domains. Jason explains that the social domain can support other psychological elements and the physical domain, "*everyone knows it's better in triathlon if you train with other people, there are loads of reasons – motivation, safety, pushing yourself… you don't get better by training on your own… it just doesn't happen, you need to be pushed. It needs to be group stuff to stretch you, and these clubs offer coached technical sessions as well*". Louise explains that the mix of different experiences in the club has helped improve her own performance – "*I do like training with other people, especially people that are better than me because it does push me, because no one likes to be pushed sometimes, it does hurt, but actually it's the only reason I have gotten any better is because I am with those people*". It's this connection with other people that provides a shared identity, Louise talks about the friends she has now because of their interests in MPSE physical activity, "*my friend has just done the Otillo in Malta and I couldn't wait to see her to ask all the questions about it, so interested to see how she got on and stuff, we support and boost each other*". Similarly, a connection with others who value physical activity has influenced the participant's own value system. For example, during childhood and adolescents many participants discussed the importance of others to inspire them, Louise and Natalie talk about their dads' influence, Natalie remembers "*my dad was very sporty when he was younger and so he did a lot of exercise when I was growing up. I think he*

was for us doing exercise and I think the fact that we did a lot of walking as a family, it encouraged me, and I knew it was good and important to exercise". The participants presented a picture that showed the indivisible connection between themselves and the social relationships around them. Through the discussions they saw these connections, and the opportunity to draw on them, as important assists to their engagement in MPSE physical activity.

This also leads to the second use of social resources that also reflects what Keegan et al. (2020) refers to as the 'Connectedness' element of the social domain of physical literacy. The authors define this element as "a person's appreciation for the environment (both built and natural) and belonging to the community" (Keegan et al., 2020: 36). Drawing on sense of community literature (Sarason, 1974; McMillan and Chavis, 1986; Peck, 1987) it has been demonstrated that sense of community has strengthened life satisfaction, improved health and wellbeing and positively associated with leisure-time physical activity (Li, Pickles and Savage, 2005; Davidson and Cotter, 1991). McMillan and Chavis (1986: 8) defines sense of community as "a feeling that members have of belonging, a feeling that members matter to one another and to the group, and a shared faith that members' needs will be met through their commitment to be together". The participants in this study all describe a sort of 'ripple effect' through the community that has influenced the physical activity engagement in both MPSE and more general physical activity of other members of the community.

Fourteen out of twenty-four participants discuss starting because a friend brought them along to a club or event or asked them to train with them. Louise describes it as "*that 'pay-it-forward' thing as well like sometimes all you need is someone to say come and join our group, and you won't be judged*". As Geri was one of the first women to take part in Ironman from Tenby she has inspired many, "*they see me doing it, and there was one girl that told me I inspired her – that's amazing, brilliant, and she has friends (that you wouldn't have seen them with a pair of trainers on really) and now all of them have done Ironman or they are doing other events, and it's like… it's like from one person, two people have done it and from those people then it's four or five people have done it and then those lot are doing it and it can go on and on and on*".

Not only did the participants demonstrate the ripple of taking part in MPSE through friends and family, but also the inspiring culture change to many other members of the

community in more general physical activity participation. Jo explains the culture, "*Yeah well, the leisure centre is the local pub here now isn't it. Well people go swimming on a Friday night now they don't go to the pub, I don't meet anyone at the pub now, I meet everyone at the leisure centre*". Although this is an exaggerated picture, many other participants discuss the changes, Geri gives examples of many of her hairdressing clients, "*The people that are doing stuff are just amazing and I have got a few clients who have started at weightwatchers and now they are signed up to 4 different things in the gym that they are doing, like they weren't doing that 2 years ago. One of them she couldn't even touch her toes, people are just being inspired to be healthier it is having a ripple affect isn't it… I think its intensified in Pembs because of what is going on that people believe, like myself that you can do it, and its inspired other people to go well if they can do that I can go for a walk or I can go swimming, there's one lady who is 77, she has got a group of women who are over 60 who go swimming together every day in the summer in their wetsuits I'm telling you – at 77 just getting a wetsuit on must be hard work, she is so amazing she trains people to swim and doesn't take any money for it, and she has got these 4/5 women that she takes in the sea off her own back and she swims with them up and down the sea and I've seen her confidence building with people and it's just amazing and if you have got 77 year old women doing that – there's women at the swimming pool that are grandmas and they are doing Saundersfoot tri*". Hannah suggests that having events in the area has had the same affect, "*you see everyone else having a great time, even if you think, 'oh, I'll just work for the 5k on the LCW – that's achievable', that's achievable even if you walk it. Everyone is so encouraging, everyone gets something from it, everyone gets a medal. But you are part of something big and it's that sense of being part of the whole event, you don't always want to be on the outside looking in*". Emma describes how this has influenced her, "*I do like watching the Ironman, I'm not saying I could do anything like that, not at all, but you are there thinking – they are all shapes and sizes, you can be fat and fit, there are lots of people running around here now*". Emma continues to discuss how her participation in running events and weekly runs with her friends have changed her actions when she is childminding, "*the community has a MUGA [multi Use Games Area], in the car I have tennis rackets and basketballs and footballs, so we go in there after school. But I probably wouldn't have even thought of getting them down there to do stuff like that if I hadn't started doing my*

running, we would have probably just come home. I see the benefits". Notably this is associated with sense of community, where being surrounded by people who share similar interests and goals results in a shared interest in each other's progress (Markman, 2012). More importantly, these examples proceed to support the inclusion of the connectedness element of the social domain in the physical literacy standard (Keegan et al., 2020).

Although all participants shared experiences of sense of community and belonging, three women also raised experiences of disconnection and exclusion. Firstly, Geri discusses the changes in culture and focus/ intention of the club and its members. She describes the club when it first started "*it was quite a small group of people, they were very likeminded, the most was maybe, like going out on the bike on a Saturday… was 12 maybe 13 people but they were nice people, they were normal, everyday people, and it was like, I think, what is really sad is that now you get people now who think they are a bit elite and they don't… I don't know… I could go to the club now and (a) I won't know anybody and (b) they don't run the club like they use to. It's really sad because there are a lot of people that would be in that club that would want to out there… like, we would cycle to the slowest, now they just shoot off and they just leave you behind, I mean I have been on a couple of rides where they have sweepers* [individuals whose role it is to be at the back of the ride to ensure safety for all in the group] *and I have lost them on the first bend and I have not seen them again – it's a shame, it's just a shame! But as I say you go back to when we started it, it didn't matter how good you were, everybody made you feel really really good, but unfortunately the bigger it got you got more elite people – not elite people but people that just thought they were better… kind of a bit up themselves, working more for themselves and not the group, but it was more of a laugh when we were together and then it became more serious".*

Literature has continually discussed these topics in relation to arguably more critical societal issues such as race and refugee relocation (FIND); political perspectives (Itten, 2019 overcoming social division book); and isolation of transgender individuals (FIND). Where sport or physical activity is concerned literature discusses the attitudes towards differently abled individuals, for example in Olympic vs. Paralympic capacities (FIND). However, it is vital to also consider their influence at a smaller, local level. Itten (2019)

describes five social symptoms (Frustration, Disconnection, Fragmentation, Polarisation, Escalation) that have the potential to lead to disfunction and what he calls “disrupted societies”. The above experience from Geri speaks to disconnection within the subgroup (triathlon club in Pembrokeshire). Interestingly, when considering sense of community, specifically within sport, Warner et al. (2012) and others (Warner et al., 2013; Kerwin et al., 2015) highlight several factors that are likely to positively influence the sense of community felt by those involved. Although the factors relate to MPSE to varying degrees, participants have identified how two factors in particular have caused the opposite. The above example from Geri demonstrates that Competition has caused elitist mentalities to surface within the group and instead of creating camaraderie as expected by Warner and colleagues (2012; 2013; Kerwin et al., 2015) has caused exclusion to be felt. Similarly, Equity is highlighted by the authors to foster sense of community where those involved are to be treated equally (in the authors cases, they highlight members should be treated equally in administrative decisions). However, Tina and Rachel share their experiences where the wider subgroup of event organisers and volunteers have not treated them in the same regard as other participants. Rachel explains that she was on the last lap of an endurance swim (two-miles) and she “*wasn’t getting anywhere and there was a boy on one of the support kayaks and I shouted to him ‘that buoy is moving further away’ and he said ‘you’ve just got to try harder, love’”*, she felt demoralised but it spurred her on to not give up like many of the others were doing around her. Tina has experienced it in a different way, “*they don’t expect a disabled person, in fact I did [local triathlon event], in May as part of a relay team and I went to walk in to where all the athletes meet and the guy said to me ‘sorry athletes only’ and I went ‘I am doing the swim’ and he apologised, but all the people that were walking with me – he didn’t question any of them, but said to me ‘athletes only’… it just goes to show people automatically think you can’t do it”.* Tina also got an electric bike that helps her join in with the community running groups to attend with her friends but she would like to try sportif events with it, “*I’ve got my bike now, but you can’t enter events with it, even though I probably would still be way behind everybody else, I have contemplated asking whether I could enter an event on my electric bike but I don’t know what they would say*”.

Regarding MPSEs Cleland et al. (2019) suggests that "running events that require entry fees tend to attract more experienced/ professional runners who are 'racing', and this can make less experienced, non-elite runners feel inadequate or excluded if they are participating for fun". Although the authors do not support this with literature sources the examples above could start to speak to this idea, however far more research is needed to fully consider the significance of this.

When considering the Connectedness element of the social domain (Keegan et al., 2020) it is therefore vital to consider the challenges that may be faced by individuals accessing or interacting with their social environment. In the same way that the other domains and elements can be negatively impacted so too can the social domain. The Connectedness element also refers to "using or adapting the natural and built environment for movement and physical activity" (Keegan et al., 2020: 37). Although the physical environment was not talked about to the same degree as the social environment several participants raised important points that demonstrate role of the physical environment as physical activity resource.

6.3.1.3 Physical Environment Resources.

It is widely accepted that the physical environment can play a vital role in encouraging physical activity (Humpel et al., 2002; Bauman et al., 2012; Costello et al., 2011). Notably, accessibility has been highlighted as one of the most important factors by the last two decades of research (Humpel et al., 2002; Sallis et al., 2006; Bauman et al., 2012; Cerin et al., 2017; Peteman et al., 2021). Interestingly, the participants demonstrate the access their environment provided growing up in Pembrokeshire. Having access to the sea meant that several of the athletes grew up confident in their abilities in the water, not just swimming but other activities. For example, Jamie remembers, "*we would get off the bus after school and run down to Trevelin Farm and go surfing for three hours before going home, pretty much every day for years… the farmer used to let us store our wetsuits and surfboards in an outhouse, so we would get changed and surf until it was dark and then run home*". Matthew agrees, "*we would spend most of our time playing on the cliffs around St Davids you learnt off older peers how to respect the sea and then we'd all be lifeguards across the beaches when were old enough*". Being a rural county, several participants discuss the necessity of active travel while they were growing up. Howard explains, "[Living in Pembrokeshire]

you had to be physically active, everyday we would walk places, cycle places and because it was rural out friends lived about half a mile to a mile away to we had to cycle the lanes to each other's houses – there was less traffic on the roads, so our parents didn't mind so much". Matthew had a similar experience, "*My fitness came from living around here, using the bike to get around everywhere*".

As a person that moved to Pembrokeshire later in life Louise explains the access and opportunity that living in Pembrokeshire provided, "*it's got everything you need, everything you want. I think since living here it has opened so much opportunities for me to do things I never thought would be possible – like I have done the Tenfoot swim – I have swam from Tenby to Saundersfoot – a massive achievement for me, massive learning curve swimming in the ocean it's not like swimming in the pool. It's* [the environment] *offering so many challenges in so many different ways… I just love the challenges it gives you around here like the hills, they are a bitch, but they are part of it*". Jason also discusses the residents taking advantage of what they have access to "they know what's on their doorstep – it's gorgeous around here – so going out for a bike ride whenever you have got good weather. All over the place here – it's going to lift your spirit, and then if you have a focus to train for an event, what better place to train for it – best county in the UK!".

As the participants above describe, Pembrokeshire's natural environment provides great opportunity and challenge for MPSEs. The ability to hold MPSE in the area has been identified by organisers as a way of encouraging tourism to the area, Trevor explains, "*well the big resource is the area isn't it – tourism is a big part of the economy here. It's capitalising in what you've got – it's looking at our area and going – 'well what can we do here?'*". MPSE literature has already pointed out several studies saw a rise in participation after cycle and triathlon events (Bowles et al., 2006; Lane et al., 2008; Crofts et al., 2012). Jo has seen the influence of these events in this way "*we have got the sea, for people to sea swim, sea swimming was almost obsolete when I started doing it years ago – I mean where'd you get a wetsuit? And now people are swimming left, right and centre!*".

Fundamentally, when discussing reasons as to why they take part in these events most participants simply say they're "on my doorstep" (David, Louise, Victoria, Ross, Jamie). Jo and Howard suggest that having an international major event in such a small rural

county for the last ten years has sparked people's interest, "it's not very often that things come down this way, so I think a lot of people have said 'Yeah! I'm going to do that!'" (Howard). Jonnie even goes as far as to say that it is part of the culture of Pembrokeshire now, "they are on everyone's doorstep here, so going to events is normalised". Most participants, like Natalie, talk of the cyclical relationship between events and the participant's attitudes towards the surrounding environment, "it made me fall in love with being outdoors and active even more".

However, like the social resources, the physical environment has also presented threats to physical activity participation. Specifically, all participants share issues with safety when it comes to bike rides. Whether talking about urban or natural spaces, literature continue to highlight safety as a key factor in the success of the physical environment physical activity provision. (Humpel et al., 2002; Sallis et al., 2006). Not only do the participations share their experiences of crashes, knocks and "close calls" on cycle rides, but crucially most participants talked about the changes in attitudes of other residents as cycling became more popular over the years. Jo explains, "*the phenomenon of cycling is getting more and more dangerous, the bubble will burst eventually because someone will die and it will probably be me because I cycle about 500 miles a month and the amount of abuse you get on the road is unbelievable. Unbelievable!".* All athletes had at least two stories that they shared of these dangers, all stories discussed an 'us and them' mentality between cyclists and other road users. For example, Cat describes the road use rules "*Cyclists will cycle two a breast – from a cyclist point of view that is because a car can't just squeeze past you they have to make sure there is no oncoming traffic to be able to pass safely. But if you are one behind the other, they just… the amount of times I have nearly been hit with wing mirrors… [people need to be more] aware of the rules and stop them having that 'get them off our roads' attitude*'". Zoe describes another example, "*We had an incident where we were coming up The Ridgeway this bloke was literally… I could have touched his vehicle and he was tooting at us… we were behind one another… there was a pull in so I had actually moved away from the road, onto the gravelly bit of the road, and he was just being… the car behind him really overexaggerated taking over us because obviously he could see the guy in front nearly knocked us off the bike, and when they beep their horn you have a wobble because it's a shock! He drove that close to us on purpose… the two*

of us were single file, there was plenty of room to overtake, there was no oncoming traffic." Several athletes discuss the other side of the argument, for example, Sara continues "*you also see the cyclists pulling out and you think 'what are you doing'*", Jo says there are some cyclists that let others down – she describes a segment on a local radio station "*this women phoned up and said all cyclists do this and all cyclists do that and I was like no they don't because I don't do any of that stuff, but they were very critical and its really frustrating but I understand because some cyclists don't help themselves at all*". Even after getting knocked off her bike on the back roads (safest place to ride according to the athletes) by a dog, Zoe had an A&E nurse express her frustration, "*the nurse that cleaned me up and cleaned out the wound and stuff she asked what had happened and I told her I had fallen off my bike and she made some type of comment like 'oh yeah I live in Tenby and it's a bloody nightmare all these cyclists and stuff all over the place' and she said they had had loads of cyclists in after accidents on the roads. It made me feel really uncomfortable, so I made a point of saying that I was on the back roads and I was chased by a dog it wasn't that I was being careful or anything like that, as soon as I said that she changed her tune towards me like 'oh I didn't mean anything by it' before it was like she was blaming me*". Some athletes have even changed their participation behaviour – "*These days I don't really like going out on the bike much anymore, because I'm another cyclist on the road and I'm more anxious, I would now always choose to go running over cycling now because I could relax and enjoy it, I always feel anxious on the bike now, and when we do go out I make sure we go out super early to try and avoid traffic*" Zoe says.

Again, the complexity of health resources requires further consideration and research to better understand the sometimes-fragile nature of support structures around physical activity. That said, the study demonstrates the role of the concept of physical literacy as physical activity resource within health and wellbeing discourse (Cairney et al., 2019). Importantly, the discussion also presents an argument for the social domain to be considered more deliberately within the physical literacy concept (Keegan et al., 2017; Keegan et al., 2020); and for wider resources to be included and researched within the domains. Notably, the unpredictable nature of support structures at adulthood continues to be a key issue for research to shed further light on the place and appearance of physical literacy for the adult population.

When considering the social environment, the third finding was generated as a theme demonstrating the connection between events and the community. All the participants discussed the different roles of the community in creating a successful event. Additionally, many discussed the idea of ownership over the event. Additional data from athlete's blogs and media articles also present the relationship between the residents of Pembrokeshire and the events they host.

6.3.2 Key Finding 3: There is a mutual dependence between events and the community.

The Eventful Weekend (chapter two) presented a creative non-fiction of the data used for this finding.

As noted above, the community has been hosting a large number of MPSE per year with some participants suggesting that the easy access to these events have allowed for greater and sustained engagement. Therefore, it is necessary to consider what supports the functioning and success of these events. For example, when taking part in these events many participants have discussed the role of the local community as crowds and encouraging atmosphere. Especially for the residents taking part in the signature and major events, they spoke of the unique community connections as a social resource that they relied on when competing or participating in MPSEs in the area. Many participants discussed how "knowing everyone" can really support you through long distance races (such as Ironman Wales), Ross explains "… *so many pockets of people I know from football, from school [being a teacher]. This year me and the headmaster both did it and as we cycled passed the school the banners were literally all across the front of the school, I was off on paternity, so they had literally spent the whole week preparing these banners. So literally without being big headed I know people, and that is massive, you don't get those dark places because I know in five minutes time I'm going to be at the next village and I know certain people are going to be there, and you kind of work towards that*".

When analysing the data, it became clear that the role of the community was not just part of the resident engagement but played a wider role in the success and positive reputation of the major and signature events in the area. For example, knowing many groups of people around the route showed to be helpful to the residents of Pembrokeshire that took part, but the effect of the crowds was talked about in all blog posts found, written by visiting participants:

*"*Now I am not a runner, but the 1km run from the swim-exist to T1 at Ironman Wales is my favourite km to run of the entire year. Nothing prepares you for the crowds and the noise; its unparalleled in triathlon*"* (BL-P-G-M-E-18).

"*There were already hundreds of spectators lining the streets and it was barely 6:30am! This gave a little indication of how Tenby gained its reputation as the best event for crowd support*" (BL-Si405-M-A-19).

All blog posts also presented the Event image of Ironman Wales held by visiting participants:

*"*It is really one of the best (albeit toughest) races out there*"* (BL-LG-F-E-17).

"*Ironman Wales is unique in my book it's by far the best Ironman in the world*" (BL-LG-E-18).

"*I know there is so much marketing hype these days about races being 'the best in the world', but Ironman Wales genuinely lives up to the hype. The whole weekend is just an absolute pleasure and an amazing experience*" (BL-Si405-M-A-19).

Literature has demonstrated how events image can play a vital role in presenting a unique destination image of the host (Oshimi and Harada, 2019). This study supports this literature while also demonstrating the role of annual or regular events to encourage the enduring image (Taks, 2013; Hemmonsbey et al. 2018) in comparison to the temporary nature of mega events (Chalip, 2017). More specifically, in branding Pembrokeshire with these types of events has meant that self-congruence (Usakli and Baloglu, 2011; Hosany et al., 2006; Ekinici et al., 2011) has led to further visits and "new money" to the area throughout the year (Frost and Frost, 2019: 84). Data from blogs, media interviews, and organiser and participant interviews, all show evidence of this in Pembrokeshire. A visiting participant shares, "*having been to Tenby three times this year to train the place has really grown on me, and the way the locals embrace the event coming to the town is brilliant*" (BL-JB-M-17). In a recent interview with the New York Times, Tenby Town Clerk shows the shift in visitor interests, "*We still get families, but we see more and more people coming for fitness tourism*" (Testa, 2018). An organiser of a community level fell-running race also shares "*people from the village say they have never seen so many runners coming, not so much on race day but in training, a lot of people will know the route now and do it or parts of it when they come back*" (Trevor). Resident participants have also noticed the continued visit for MPSE participation and training. Robbie states "*we would see people during Easter, and summer holidays training and they come and train with us as [one of the] local clubs –*

that is all year around now". With others sharing how important this is for the county "*Pembrokeshire has got nothing really, if you look at the industry it's only tourism, if you're not a farmer you do tourism. The way that Pembrokeshire has embraced tourism events I think is great because they have realised what it can do for the county. And it attracts the right people. I mean 10 years ago you use to have the 'kiss-me-quick' hen nights and stag night groups and they are throwing up and smashing things up – that's not the sort of people we need. We want people that come into the county that spend money, they will come back because it's so beautiful and bring their families with them. I think sporting events bring in revenue and we need to keep them here!*" (Nicola).

As demonstrated by event studies and event management literature (Getz, 2008; Getz and Page, 2016; Rojek, 2013), economic and sociocultural benefits are arguably one of the most important reasons for hosting events. Evidence of these benefits have been seen across the data, one media article from the first Ironman race states that local bed and breakfasts could have "filled the hotel three times over" (BBC, 2011) and a visiting participant's blog warn that "all the hotels in Tenby itself have been booked up a year in advance of race week" (BL-BH-M-A-18). A Recent Pembrokeshire County Council report has also demonstrated how a Signature Event has seen the same impact on the area "Activity Wales Events has been successfully holding the 'Long Course Weekend' in Pembrokeshire since 2010. The aim of Activity Wales from the outset was to establish a tourism product that would provide a platform to encourage people into sport, whilst at the same time providing a national and international tourism product. In the first year, it attracted 1000 participants across the weekend. Feedback from Activity Wales indicates that in 2018 the event attracted 8700 participants across the weekend from 34 countries, over 160,000 bed nights created, and televised in 100 countries" (PCCR-LCW-Oct18).

Participants were quick to share what they felt the benefits were of hosting events in the area. For example, Jo shows how these events have contributed to the lifestyle of her family, "my stepson's job – he is a bike mechanic, and he is doing that full-time now, only because people are doing all the events around here". In fact, many participants point to health improvements, specifically physical activity engagement, due to Pembrokeshire hosting the events. Firstly, Howard states, "*I think probably if*

Ironman hadn't been in Tenby I would never had even contemplated doing it, it was purely because it was local, and I saw it and it got in my head". Louise agrees that the signature events "*have inspired so many people to go from nothing to great, great things*". Geri and Cat also discuss changes in their community due to the events. "*it was your cyclists doing it and now what I love it at events now it's everybody doing it. Without being horrible – you've got your arseholes doing it, but you've also got your everyday mum of three doing it which I absolutely love*" (Geri), Cat summarises by stating "*I think that impact on the health and wellbeing of our community has increased I can really see that*".

As the creative non-fiction presents, the ethnographies and incidental conversations with community residents also show evidence of community benefits for the event. This data supported the work of Misener (2013) and Duffy and Mair (2018) who have demonstrated positive social impact of events and festivals. Noting increased sense of community, shared values and ownership between community members, especially for those who actively engage in volunteering. Social capital qualities were also seen in the data which starts to present the MPSE contribution to this field of literature. However, there is more research required here due to what Portes (1998: 19) refers to as "logical circularity". Social capital improvement or development between volunteer residents at MPSE events deserve dedicated research but the data here presents promising insights especially in community level events.

However, one particular issue that is becoming a growing concern is the criticism many authors have of the outcome reports of events (specifically mega events, due to that trend in the literature) due to concerns over validity and overestimation of benefits (Mules and Faulkner, 1006; Jones, 2001; Getz, 2009: 389; Rojeck, 2013). This is particularly worrying when decisions and actions of destination managers, in this case Pembrokeshire County Council are based on these type of reports. Feedback presented to Pembrokeshire County Council by Ironman in 2013 "indicated a total contribution to the local economy amounting to some £3.7M annually" (PCC, 2017). This report along with other annual reports from Ironman were used to support the signing of a new Host Sponsorship Agreement with Ironman Ltd from 2017-2021. Within this agreement the Authority is required to pay Ironman £50,000 annually as well as waive fees for road closures, street and parking services, and cover extended

cleaning operations. A similar agreement has also been made with Activity Wales for Long Course Weekend, where an annual payment of £20,000 for three years as well as waivers similar to those above are included. Reasons for this agreement were made based on Activity Wales' own assessments of the event impact, including tourism and destination image; economic contributions to the area; and "contributions from the event to improving the quality of life and community benefits" (PCC, 2018: 3). The Activity Wales report suggests ten key contributions from the event to quality of life and community benefits. Interestingly, of the ten points raised, three points speak of the important sustainability and ethical changes of actions of the brand (e.g. finishers and crew tops being made from recycled bottles from previous years and organising for the participant bags to be made from coffee sacks providing a living wage to a group of women in Malawi) but are not directly related to the Pembrokeshire community. Additionally, within the review of Long Course Weekend there were several substantial issues raised by the community when given the opportunity to voice their concerns around quality of life and community benefits. These comments, included in the 2019 review of the event (PCC, 2019), state worries of economic impact, closure of roads and isolation of individuals, time of year of event is already very busy. Therefore, more work is needed to fully appreciate the community benefits and outcomes from the major MPSEs in the area. Especially a more independent audit as notably, the Authority has yet to carry out their own independent assessment of either event (both events now in their tenth year). Clearly, Pembrokeshire County Council rate the ability of these signature events to attract visitors to the area and perceive these benefits to out-weigh the investment and impositions placed on the county.

On that note, the LCW report (PCC, 2019: 3) presents five ways that the event potentially supports the community, including donating money to local community groups who provide 10 volunteers, or "offering £1000 to the best supporting village", or offering discounted places to those that live "on the course". However, these contributions rely heavily on residents and local clubs to volunteer and actively participate in the running and positive experiences of the event. At present, literature is yet to fully consider pro-event behaviours of residents, especially at hallmark and community level events. Helpful insights for pro-tourism/event behaviour literature

(Stylidis, 2016; 2018; Eusebio et al., 2018; Riberio et al., 2017) have presented examples of behaviours such as willingness to be hospitable towards visitors and willing to accept inconvenience (noise pollution, congestion, queuing) if the benefits outweigh the negatives (Li et al., 2015; Jackson, 2008). More importantly, this study (Eventful Weekend) presents pro-event behaviours within the MPSEs requiring much more effort than those for general tourism and mega-events within current literature. As the council manager in charge of running these events states during an interview for this study, "*it's the event organisers' role to parachute an event in. It's up to the community to put the meat on the bones*" (David). Again, future dedicated research is required in this area.

As the literature suggests there will always be issues that face these residents and their acceptance of them to support events in the area. Place disruption and place-protective behaviours (Devine-Wright, 2009; Stedman, 2002: 576) have been highlighted by literature. Additionally, Richards and Palmer (2010: 183) uses the phrase "event fatigue" when discussing too many events being organised in an area. However, as yet there has not been research into what this may look like. This study presents data specific to the area of Pembrokeshire and MPSE, the participants discuss the negatives and challenges around the hallmark and signature events in the area. For example, place-protective behaviours or at the least unhospitable behaviours have been demonstrated "*oily substance had been put on the most dangerous and technical downhill part of the course too, so Ironman decided to change the bike loop around it [while the race was underway], thankfully*" (BL-PG-M-E-17). Declan, a life-long resident of Pembrokeshire and lives in Tenby directly on the bike route, explains how the events have been impacting the place – talking about Ironman he explains, "*I don't like that the town is taken over by so many people, and the town tries its best to look after them all, but we don't really have the infrastructure to accommodate them all. And they just over-run the place. It's probably the busiest weekend of the year, and there are busy weekends because it's a tourist destination, but that weekend there are people everywhere*". Many of the comments and feedback given by the residents towards the county paying £20,000 to LCW are raised around economic impacts, business income issues, road closures, seasonality:

- "*the county council to be supporting a private company financially, to the economic detriment of others, without a proper economic impact assessment being carried out*".
- "*Businesses are down, in some cases nearly 45%*".
- "*Don't understand why this is not done in May or June where it will really bring people to the area when it is not busy, not in a busy July weekend when the holiday makers are coming anyhow*".
- "*If they are going to do the race again next year at least not the same roads to be closed as this year because it's not fair on the same*".
- "*Some customers had nothing to do with the long course weekend or had little or no interest in the event and generally viewed it as an inconvenience to them*".

Sara also summarises the feelings of weakening place attachment, "*It would be nice to know… it might be more of an incentive to support it if we see the benefits of a local person. There is always going to be negatives around stuff isn't it, but we want to make sure that the positives outweigh those negatives. At the beginning it is all positive like it's great to see all the Pembrokeshire residents doing more training and being more physical active, but now you start to see these little negative things coming in and ruining that picture – gels being chucked in hedges, drunks down at Ironman*". Zoe adds, "*I don't know if it's one too many now… I enjoyed Ironman this year but I didn't like certain parts of it like the drunk people, the people drinking at seven in the morning carrying crates of beer around with them, it says it brings Pembs a lot of money but there clearly are people that have just bought stuff from where they are from carting it around Tenby. I found that a real negative this year*".

Interestingly, this aspect of Ironman Wales was discussed by all residents including the resident participants. For some they see it in a mostly positive light, Nicole explains, "*The only negative that I've experienced linked to that is people grabbing you because they want to support you, but I've never experienced any fighting, anyone breaking things, you don't see that on Ironman Weekend, you see people drunk for sure and the drunker they get the harder they slap you has you go past [laughs] but they are not doing that to be horrible they are just over enthusiastic, so I've not seen anything*

where I would say that has frightened me or I felt was bad for the sport. Having done Bolton and Outlaw the support here is second to none – it's like a big party and you just want to be a part of it".

However, for others, they see this behaviour as an issue affecting their enjoyment of the day, also alluded to in 'The Eventful Weekend'. Cat debates whether the event has change purpose for many, "*I just think the pub culture that is around everywhere really is making it become almost like a festival rather than this amazing sporting achievement. Some of the people who come down now over the last few years are just using it as a reason to drink and have a party*". Zoe agrees, "*It's kind of reminded me of when you go out and watch the rugby in Cardiff and it's that drinking culture and Ironman has never really seemed like that to me. We were questioning whether it was legal to actually drink on the streets like they were, and all the rubbish was everywhere. Don't get me wrong the council did a good job at clearing it all up but you kind of feel everybody just came in had a good party and just buggered off and left it to the people of pembs to clear it up. I kind of think it's gone full circle they got rid of the hen and stag nights because of all the behaviour and I saw this year a couple arguing on the streets and really going at each other with children around, it wasn't even that late in the evening. This is a family day out about participants and then drinking just takes over… If you think of sporting events people are out drinking and having a good time, but some people turn up just because there are people there, just because there's an atmosphere they are not bothered about the race – they want to drink and have a good time*". Sara discusses this idea further, "*I think the first year we watched it all the people there watching had a reason to be there – because they knew someone or because they were local, the purpose of them being there that day was to support the participants, but because it has been advertised now and more people know about it and know it's a great day out, maybe people are seeing it as a day to go out and socialise and get drunk, other than a day to support the participants. They may have seen it on the telly, and they know it's not that far away, so they want to be involved on the day, just to experience it*". Cat gives another example where a friend has experienced the same presented in 'The Eventful Weekend', "*she said this year was the worst year for lairiness and drunkenness on the streets to the point where she felt intimidated, and she has probably done it four years beforehand it has never been this*

bad". Jo also experienced negative behaviour around the event, "*The problem with ironman now is you've got two extremes, you've got people who are participants and you've got people who see it as a big piss-up, and the volume of people supporting is ridiculous, the crowd management… you just can't… it's just in case…And their smoking drinking and leering at you and the passageway you have to run through now particularly around the pubs, and everyone is just so drunk!! Tim my husband own [Holiday Homes] and we went to go for a pee in his office and we walked around the back and there were some people snorting coke, it's like, 'What!?', I was like, 'fellas this is a sporting event and you're stood here in the middle of the afternoon snorting coke, jog on, come on now!'*" she continues, "*so it's like Christmas day for them they come down and it's like the wider families too will just spend all day getting pissed and having a right old knees up having a great time because they just see it as a party. In fact it's quite funny because people have, on Ironman day as they do on Christmas day, they have traditions, like my friend she comes down and she gets absolutely blindo every year, she's got her traditions – she gets up and goes and watches the swim, her kids go with her and her partner, her husband has done it before, they go back to the caravan she has a tin of cider and then she is on it then for the rest of the day, she is on the pop all day watching it, you know people have got their own things that they do*". Cat also noticed that the traditions of spectators have changed, "*What I saw for a difference this year were where families had set up camps with deck chairs and just had crates of beer, where before you wouldn't necessarily see that people would mooch about and not kind of have a base, whereas now that culture has started to creep in to setting up camp getting a load of food and having a day of getting drunk*".

Although the benefits of hosting events have been highlighted in many ways through interviews and observations at events, the issues raised above present real challenges to the sustainability of the success of events in Pembrokeshire. The data from residents describes pro-event behaviours that require more effort on the part of the resident than those found in pro-tourism behaviour literature at present (Stylidis, 2016; 2018; Eusebio et al., 2018; Riberio et al., 2017). Therefore, the topic requires purposeful research to understand the rightful balance of relationship between events and the host community. Specifically, for Pembrokeshire, community benefits and quality of life independent reports require urgent action to prevent further

deterioration of host community opinions of the signature and major events held in the area.

The current chapter has presented the discussion of results and findings of the study. Interestingly, both quantitative and qualitative data support a salutogenic perspective of health. Firstly, aligning with participants own health and wellbeing values for their motives to engage in MPSE physical activity. Secondly, a salutogenic perspective allowed for a wider understanding of the role of physical activity and how engaging in MPSE physical activity gave access to other health resources. Applying a salutogenic lens to physical activity illustrated resources used to support continued engagement discussed by the participants. This also demonstrates the place of physical literacy as a physical activity resource within a salutogenic understanding of health and wellbeing. Thirdly, the final finding demonstrated the relationship between host community and events.

6.4 Summary

This chapter discussed the collective results and findings related to each research question. Firstly, both quantitative results and qualitative findings showed the connection between MPSE physical activity engagement and a holistic perspective of health and wellbeing. Secondly, interacting resources have supported sustained engagement for participants over multiple years. Additionally, the relationship between events and the host community was explored. The empirical data evidenced the benefits provided by the events, but also the vital role of the community as supporters and volunteers for the events to happen. The next, and final chapter will present the concluding statements for the study and demonstrate where this study provides new knowledge to the literature areas.

7. Conclusion

This chapter will firstly present a summary of findings and concluding statements based on the three research questions of the study. First, these conclusions will take into consideration the data analysis and discussions of the previous chapter. Additionally, recommendations are provided as suggestions for future research in several areas of literature, these are discussed with each concluding statement. Second, the chapter will present the key new knowledge this study contributes to academic literature. These contributions are guided by the review of literature in chapter three and the empirical research and discussion of findings. Third, limitations to the study are explained and suggestions are offered to reduce these in future research. Fourth and finally, I provide a self-reflection on my final thoughts, lessons learnt and advice on completing the study.

7.1 Summary of Findings and Conclusions

The research problem presented in the introduction chapter was to explore the reasons behind the continued, high-level participation behaviours of residents across a range of MPSEs in Pembrokeshire. This was based on the anecdotal evidence of the phenomenon in Pembrokeshire. Therefore, the aim of the study was to explore a saluto-ecological perspective of mass participation sport events in Pembrokeshire. The specific research objectives were:

1. Investigate the growth of MPSE specifically in Pembrokeshire
2. Classify demographic and motivational characteristics of those that take part in MPSEs
3. Evidence individual experiences of MPSE phenomenon in Pembrokeshire
4. Explore perceived health and wellbeing benefits for participants
5. Identify multilevel environments and resources that have influenced continued physical activity in Pembrokeshire
6. Explore how these environments and resources may interact for continued physical activity.

The research questions were used to frame the findings and thus the concluding statements in this chapter.

7.1.1 Research question one: 'What demographic characteristics and motivations inform the MPSE population?'.

The data collected at events from the quantitative survey as well as organiser data from Activity Wales Events, spoke of similar demographic characteristics that have been seen across previous MPSE literature. Just over thirty-one percent of the participants who took part in the survey were women. Although this number is low, most recent data from Activity Wales Events demonstrated a promising dramatic rise in women participants, especially in the shorter distances. Nevertheless, men still dominate the longest distance events in their weekend-long event. Additionally, income demographic data shows a potentially worrying exclusion issue for those who can take part. This study demonstrated that nearly forty-eight percent of participants had a household income of more than £60,000 in comparison to median annual salary of UK residents at £24,937 for the year the data was collected (ONS, 2019). Therefore, the first conclusion to be drawn from this study is that income and gender demographics inform participation in MPSE physical activity.

Clear recommendations from this finding would be for further research to explore the participation practices of women in the area. Not only looking at their motives for this high engagement in the shorter distance races but the potential barriers or drawbacks to their participation in the longest distances. A very interesting, recent study from Johnson et al. (2021) speaks of the issues that are faced by women participating in Ironman events. The authors indicated that although experiences of growth in adversity and empowerment were experienced, they were controlled by "gendered labour, hegemonic family culture and the pursuit of an unattainable work-family balance" (Johnson et al., 2021: 19). This starts to shed light on the complexity of women's participation in these type of events and further illustrates the need for research in women's participation. Moreover, given the previous literature has highlighted the potential public health benefits of participating in MPSEs, the income demographic in this study provides a worrying statistic. Potentially causing a barrier to these 'public health benefits' for those who cannot afford it. Not only does this require further research but immediate action can be taken by event organisers to offer more inclusive event options.

Motivation of participants was also a focus of this question. Interestingly, Positive Health, Revitalisation, and Nimbleness all scored in the top 50% of motivation subscales. However, in both previous uses of the EMI-2 questionnaire in MPSE literature (Funk et al. 2011; Crofts et al. 2012) these subscales were either removed or combined with other subscales for a shorter survey. The results of the EMI-2 questionnaire in this study proved that future authors need to carefully consider the reasons for excluding subscales. Funk et al. (2011: 258) stated that Revitilisation and Nimbleness "were not commonly associated with MPSEs", however the findings in this study contradict this. Moreover, in Crofts et al.'s (2012) study they combined Positive Health and Ill-health Avoidance. However, this study would argue that there are important differences between these subscales and participants highlighted Positive Health as the most important motive and Ill-Health avoidance as the seventh most important.

The second conclusion to be drawn from this study is that participants are motived by strengths-based aspects of holistic health and wellbeing.

7.1.2 Research question two was 'What role has the MPSE phenomenon had on health and wellbeing of participants in Pembrokeshire?'

The top five motives highlighted by participants through the EMI-2 questionnaire reflected the strengths-based perspective of health and wellbeing presented by salutogenesis (Antonovsky, 1979). This was further demonstrated in the experiences and views of those interviewed. When discussing the perceived health and wellbeing benefits of taking part, the participants rarely discussed its role in physical health or the amelioration of health risks. In contrast, the participants passionately discussed access to other health benefits from participating in MPSE physical activity. More specifically, the athletes highlighted several health resources (General Resistance Resources, (Antonovsky, 1979)) they used to cope with daily, or wider, health and wellbeing stressors. These resources were individual, social and environmental reflecting holistic health and wellbeing. As the discussion chapter presented, these resources covered many aspects of health and wellbeing, including psychological, social, and physical health resources.

Therefore, linked to the second concluding statement, the third conclusion to be drawn from this study is that habitual physical activity transcends physical health

benefits or risk avoidance and plays a more significant role in a salutogenic perspective of health and wellbeing.

At a societal level, future considerations need to be given to what constitutes public health. Changing the perspective from a prevention to promotion view of health would allow for wider considerations of health resources. Arguably, individuals already hold a more holistic view of their own health and wellbeing, demonstrated in this study. Therefore, future research is needed to further explore the relationship between physical activity and a Salutogenic perspective of health. At present, the connection takes the view of physical activity as an action suggesting that those that take part in physical activity have a stronger SOC and therefore more positive position towards health (Wainwright et al., 2007; Wainwright et al., 2008; Bronikowski, 2010). Future research should consider physical activity as a complex social practice, to fully understand the complex nature of physical activity engagement as a health resource in its own right.

7.1.3 Research question three was 'How do environments and resources in Pembrokeshire contribute to the continued engagement in physical activity?'

Findings under this research question firstly showed interacting resources supported participants' engagement and continued participation in physical activity. These were presented as individual, social and physical environment physical activity resources. Although this finding is related to research into determinants and correlates of physical activity (Sallis, 2006; Bauman et al., 2012), through qualitative data analysis the study demonstrates the connections and complexity of the resources and the domains of physical literacy. Moreover, from a physical literacy perspective this study presents an argument for the inclusion of the social domain to be explicitly considered in understandings of the concept (Sport Australia, 2020). Notably, this study has explicitly considered the "connectedness" element of the social domain presented by Keegan et al. (2020: 36). Although guidance to Sport Australia was to include this element in their final framework documents, the organisation has chosen to exclude it (Sport Australia, 2020). The findings from this study provide an argument for its reinstatement as a vital aspect of the social domain of physical literacy.

Physical literacy in the adult population was also considered through the findings of this research question. In more naturally autonomous environments than found in

childhood, this study demonstrates that physical literacy domains include many different resources to support habitual physical activity.

The fourth conclusion drawn from the study is that interacting resources are fundamental to support continued engagement in physical activity.

More qualitative data is needed to explore the connections between different domain resources further. For example, it is not only helpful to consider resources to encourage sedentary people to be more physically active, but also understand the connection between the resources. In addition, further research is needed to consider the 'bolstering' nature of the social resources to support individual resources.

Pembrokeshire Coast National Park provides an ideal environment for challenging MPSEs. This has been demonstrated through anecdotal evidence but also by the participants interviewed in this study. When exploring the social and physical resources many athletes discussed that there are so many events in the area they had easy access to many MPSE opportunities. However, what became clear in the data generation process was the many responsibilities assigned to the community residents to allow the events to go ahead.

Therefore, the fifth conclusion drawn from this study is that there is a mutual dependence between the community and the events they host.

Supporting the work of Stylidis (2016; 2018) and others, further research should explore the specific 'pro-event' behaviours that are required for successful community buy-in for the MPSEs. Similarly, the idea of event fatigue needs to be considered further. This would help understand the optimal number of events to incur the benefits that events can provide to the area but minimise the disadvantages (Richards, 2017; Richards and Palmer, 2010).

Recommendations for event organisers and Pembrokeshire county council align with the issues above. Event organisers need to be realistic on what to expect of volunteers and wider community. Additionally, organisers need to consider quality of life of the community when considering, new events, time of year, and day of the week.

It is vital that the county council, working with all the event organisers apply a model of eventfulness (Richards, 2017) to control the event portfolio for Pembrokeshire. This

would manage pressures on the community and the number of different events through the year. Additionally, as a matter of urgency, it is essential that Pembrokeshire County Council carry out an independent audit of the events and real impact on the community. At present they have accepted the findings of audits carried out by event organisers, a more in-depth evaluation of community impact both positive and negative is needed.

7.2 Contributions to knowledge

This study provides new knowledge in three areas of literature. Firstly, engagement in physical activity can be considered as a health resources in health-promotion theories such as Salutogenesis. This study has also demonstrated many general resistance resources that individuals have access to that limit engagement in physical activity.

This research demonstrates the importance of a domain-understanding of physical literacy so that many elements can be considered rather than just the few that appear in the most popular definition of physical literacy. Moreover, this study provides evidence of "connectedness" element within the social domain of physical literacy (Keegan et al. 2020). The study has also demonstrated the holistic and interacting nature of domains.

Finally, this study adds new knowledge to the field of event management by showing the mutual dependence between events and the community. Additionally, a section of this study has been published as part of the 'Events and Wellbeing' special edition of Event Management Journal:

Piper, K., Wainwright, N., Emanuel, L., & Williams, A. (2021). Wellbeing Resources and Mass Participation Sports Events in Pembrokeshire. *Event Management*. Doi: 10.3727/152599521X16192004803610

7.3 Limitations

Two key limitations of the study have been identified. Firstly, it would have been beneficial to carry out participant or respondent validation of the data analysis themes and final key findings. This would have allowed participants to self-check the themes

based on their own experiences. Further it would have improved the trustworthiness of the results. It was the intention to carry out participant validation, however the first and second COVID-19 lockdown restricted further access to the participants as well as causing events in the area to be cancelled for eighteen months.

Secondly, the sample reflected a generally older and very economically stable group of participants, especially the quantitative data sample. This study continues towards understanding the public health benefits of MPSE physical activity, however, because of this demographic dominance some sub-populations were not represented. Especially important when considering public health benefits is those of low socioeconomic status.

7.4 Self-Reflection

In the introduction chapter, my journey was presented to demonstrate the experiences that have led to taking on the thesis. As advice for future PhD candidates, I would like to share how those experiences helped me through the process in this final self-reflection.

The teaching profession can sometimes be both uncontrollable and unpredictable. I relied heavily on reflection, not only in teaching the subject but when dealing with wider care issues. During the data generation process organisation and reflection was key. As the three phases in some ways overlapped through the season, and many days involved using several of the methods at once, it was vital for me to build in strategies that help organise the data and myself. It was also important for me to organise my thoughts through the process, to prevent bias but also to understand connection between phases, methods and aspects of the community. Notebooks, photos and technology helped with this, but most importantly, reflection strategies helped me work through many aspects through the data analysis process.

The writing up process proved the most difficult aspect of this whole journey. While there were times of clarity, the confusion and complexity took over a year to work through. The learning that occurred for me through this stage was the importance of sharing and discussing findings with many different people. My supervisors, who have much more research experience; the colleagues, who have a different perspectives

and expertise in different fields; and the friends, who had the patience to sit and listen while I tried to explain it in different ways. All these moments provided the steppingstones to progress – even though I might not have realised it at the time. In completing the writing up process, I feel both pride, for the final thesis, and frustration, of the issues I faced. Perfectly-imperfect.

The journey to this finished thesis has not been as straight-forward as I would have hoped four years ago. However, the twists and turns have not only strengthened it as a study but also opened my eyes to an area of literature that will be my focus for many years to come. I feel lucky to have had the opportunity to research such a field of literature that, without realising it at the beginning of the process, aligned many of my research interests with my philosophical understanding of health and wellbeing.

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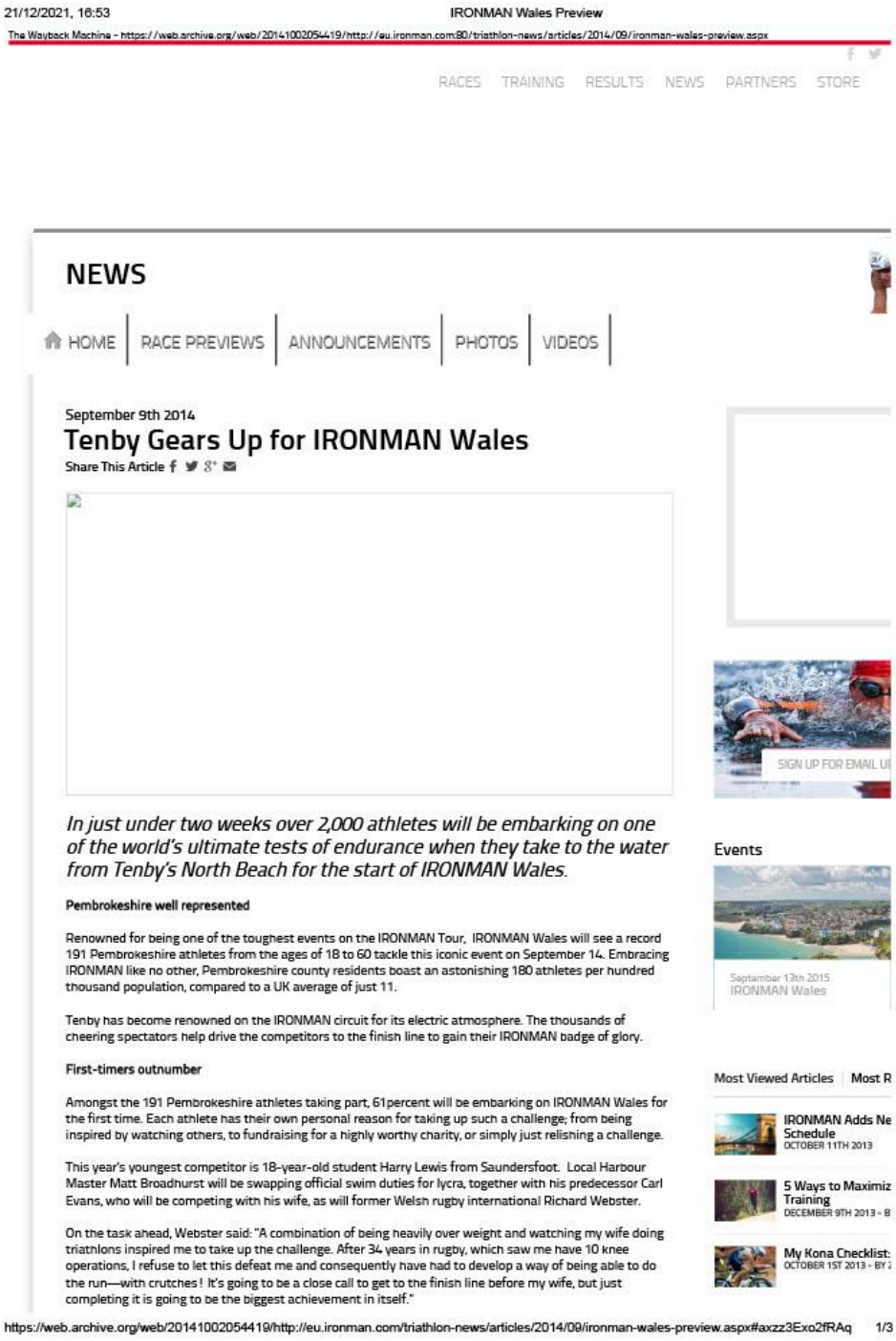
Appendix List

Appendix 1: Archived webpage of Ironman article



21/12/2021, 16:53 IRONMAN Wales Preview

The Wayback Machine - https://web.archive.org/web/20141002054419/http://eu.ironman.com:80/triathlon-news/articles/2014/09/ironman-wales-preview.aspx

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September 9th 2014

Tenby Gears Up for IRONMAN Wales

Share This Article

In just under two weeks over 2,000 athletes will be embarking on one of the world's ultimate tests of endurance when they take to the water from Tenby's North Beach for the start of IRONMAN Wales.

Pembrokeshire well represented

Renowned for being one of the toughest events on the IRONMAN Tour, IRONMAN Wales will see a record 191 Pembrokeshire athletes from the ages of 18 to 60 tackle this iconic event on September 14. Embracing IRONMAN like no other, Pembrokeshire county residents boast an astonishing 180 athletes per hundred thousand population, compared to a UK average of just 11.

Tenby has become renowned on the IRONMAN circuit for its electric atmosphere. The thousands of cheering spectators help drive the competitors to the finish line to gain their IRONMAN badge of glory.

First-timers outnumber

Amongst the 191 Pembrokeshire athletes taking part, 61percent will be embarking on IRONMAN Wales for the first time. Each athlete has their own personal reason for taking up such a challenge; from being inspired by watching others, to fundraising for a highly worthy charity, or simply just relishing a challenge.

This year's youngest competitor is 18-year-old student Harry Lewis from Saundersfoot. Local Harbour Master Matt Broadhurst will be swapping official swim duties for lycra, together with his predecessor Carl Evans, who will be competing with his wife, as will former Welsh rugby international Richard Webster.

On the task ahead, Webster said: "A combination of being heavily over weight and watching my wife doing triathlons inspired me to take up the challenge. After 34 years in rugby, which saw me have 10 knee operations, I refuse to let this defeat me and consequently have had to develop a way of being able to do the run—with crutches! It's going to be a close call to get to the finish line before my wife, but just completing it is going to be the biggest achievement in itself."

SIGN UP FOR EMAIL U

Events

September 13th 2015
IRONMAN Wales

Most Viewed Articles | Most R

IRONMAN Adds Ne Schedule
OCTOBER 11TH 2013

5 Ways to Maximiz Training
DECEMBER 9TH 2013 - B

My Kona Checklist:
OCTOBER 1ST 2013 - BY J

https://web.archive.org/web/20141002054419/http://eu.ironman.com/triathlon-news/articles/2014/09/ironman-wales-preview.aspx#axzz3Exo2fRAq 1/3

Appendix 2: Correspondence with Ironman Race Director

From: Rachel Jackson
Sent: 24 May 2019 12:26
To: 1402312@student.uwtsd.ac.uk
Subject: Fwd: PhD - Kate Piper

Hi Kate

Is the below useful?

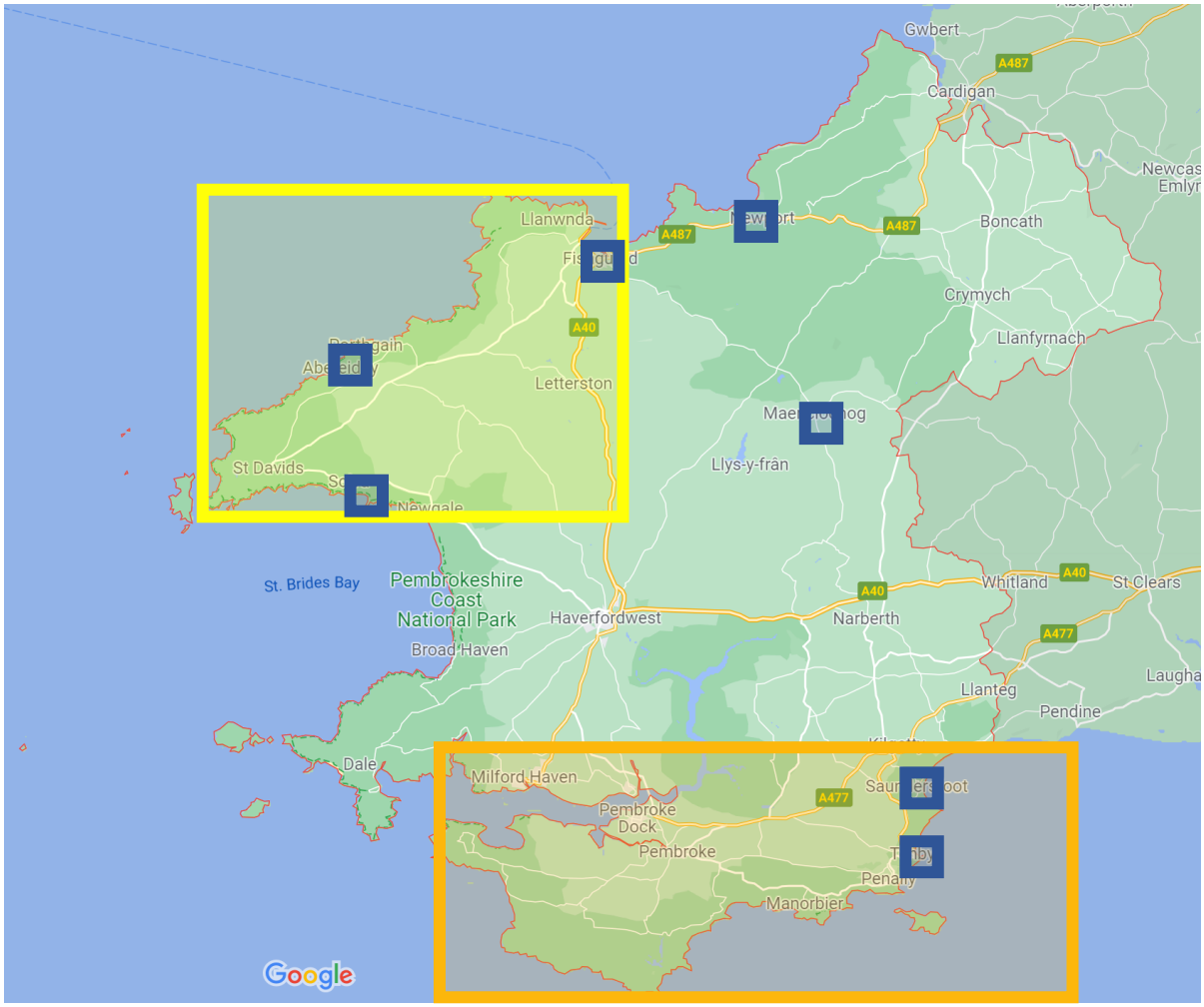
Many thanks
Rachel

Sent from my iPhone

Begin forwarded message:

> **From:** Dimitris Christodoulou <Dimitris.Christodoulou@ironman.com>
> **Date:** 24 May 2019 at 12:12:34 BST
> **To:** Rachel Jackson <Rachel.Jackson@ironman.com>, Marieka Barnard <Marieka.Barnard@ironman.com>
> **Cc:** Amy Hudson <Amy.Hudson@ironman.com>
> **Subject: RE: PhD - Kate Piper**
>
> Hi Rachel,
>
> I see 791 athletes from the below mentioned postal codes who were/are registered for IM Wales 2012-2019.
>
> There is an 12.8% increase on Pembrokeshire athletes in 2019 IM Wales in comparison to last year.
>
> Let me know if you need anything else.
>
> Thanks!
>
> **DIMITRIS CHRISTODOULOU**
> *Marketing Analytics Manager, EMEA*
> ---
> **IRONMAN®**
> P: +30 6945 992 091 (Please note my new mobile number)
> dimitris.christodoulou@ironman.com
> **ironman.com**

Appendix 3a: Map of Pembrokeshire and locations of events



Area of Signature and Major Events (Yellow and Orange):

- Yellow: Route location for Tour of Pembrokeshire
- Orange: Route location for Ironman and Long Course Weekend

Community Events: several events held in the same location across the season (Blue)

Appendix 3b: Photos of Events


RŌKA


Fit for Life Library


20
ZONE
PARTH
SAUNTERSFOOT
WANTS LCW
BUT NO ROAD
CLOSURES


IPA
X


THE
Nook
IRONMAN
WALES CYMRU
OPEN


TASTING


Gwesty
Meirwood
Hotel

Appendix 4: Informed consent Information

Prifysgol Cymru
Y Drindod Dewi Sant
University of Wales
Trinity Saint David

ATHROFA LLYTHRENNEDD CORFFOROL CYMRU
WALES INSTITUTE FOR PHYSICAL LITERACY

sportwales chwaraeoncymru

A social-ecological perspective of mass participation sports event (MPSE) culture in Pembrokeshire

Study information

- Mass participation sport events have a big community of athletes taking part from 5k Parkrun and obstacle courses to Ironman or single disciple events.
- UK: Increases in participation of marathons, cycle sportif and triathlons (British Triathlon, 2017).
- Ironman Wales: 180 ironman athletes/100,000 population (Ironman, 2014); phenomenon of participating in these events (↑ Clubs ↑race starts ↑spectators).
- Anecdotal evidence suggests Pembrokeshire owning the races within the county – testament to 10 years of Ironman Wales; "spectator experience" of the event and others; events sell out faster each year (Ironman, 2019).
- Anecdotal evidence: considerable community and identity around MPSEs in Pembrokeshire.

Why do the study?

- Explore the cultural phenomenon present in Pembrokeshire:
  - What makes a successful community/ culture around MPSEs?
  - Using a social ecological perspective – exploring the different environments.
- Studies have focused on athletes specifically motivation, the study intends to:
  - Provide a broader understanding of event culture at community level.
  - Focus on Wales and Pembrokeshire.
- Add to growing literature with new focus .

How are we going to research?

- Phase 1: Picture of event culture so far [until March 31st 2019]
  - Athlete blogs and forums;
  - News and media articles;
  - Numbers from organisers.
- Phase 2: Main data collection phase [April 1st – September 30th 2019]
  - Questionnaire – Motivation of athletes;
  - Ethnographies – Observations of events;
  - Interviews:
    - Council member – policy level;
    - Pembrokeshire residents and business owners;
    - Event organisers;
    - Athletes and supporters;
  - Blogs and Forums [to continue to end of year to include late write-ups].
- Phase 3: Final Interviews and follow up of themes [Oct 1st – December 31st 2019]
  - Interviews.

Confidentiality and withdrawal

- **Anonymity**: a false name or number will be used to code all data.
- **Security**: Written materials are kept locked away and destroyed after use following data protection protocols, recordings of interviews are stored within online space that requires a password access.
- **Withdrawal**: you may choose to withdraw any or all of the data relating to you, no reference will be made to you in this study or future published work.

Prifysgol Cymru
Y Drindod Dewi Sant
University of Wales
Trinity Saint David

ATHROFA LLYTHRENNEDD CORFFOROL CYMRU
WALES INSTITUTE FOR PHYSICAL LITERACY

sportwales chwaraeoncymru

A social-ecological perspective of mass participation sports events (MPSEs) culture in Pembrokeshire

Consent form

After receiving information about the study I wish to continue to participate in the research please fill in the below consent form:

I, [redacted] consent to participating, as requested, in the ethnographies and interviews for the PhD research, lead by Kate Piper.

1. I have been fully informed of the research project and have discussed the research and future publication opportunities for the lead researcher.
2. I agree to audio recording of the interviews and participation or to be quoted by the researcher during event observations.
3. I understand that:
   a. I will not benefit financially, or otherwise, from taking part in this research;
   b. I am free to withdraw from the project at any time and free to decline to answer particular questions;
   c. I will not be identified, and individual information will remain confidential;
   d. I may ask that the recording be stopped at any time and may withdraw at any time from the session or the research completely.

Appendix 5: Demographic questionnaire

1. What is your gender?

Mark only one oval.

- ◯ Male
- ◯ Female
- ◯ I neither identify as male nor female

2. What is your age?

Mark only one oval.

- ◯ 18
- ◯ 19-29
- ◯ 30-39
- ◯ 40-49
- ◯ 50-59
- ◯ 60-69
- ◯ 70-79
- ◯ 80+

3. Number of mass participation events to date

Mark only one oval.

- ◯ This is my first
- ◯ 1-2
- ◯ 3-5
- ◯ 6-9
- ◯ 10-20
- ◯ 20+

4. My first event was...

Mark only one oval.

- ◯ more than 5 years ago
- ◯ 3-5 years ago
- ◯ 2 years ago
- ◯ 1-2 years ago
- ◯ within the last 12 months
- ◯ NA

5. Where do you live?

Mark only one oval.

- ◯ Pembrokeshire
- ◯ Wider South West Wales (Carmarthenshire and Swansea)
- ◯ West Wales (Ceredigion)
- ◯ Wider South Wales (Neath, Port Talbot, Bridgend, Glamorgan, Cardiff, Newport)
- ◯ Wider Wales (rest of the country)
- ◯ Other

6. What is your household status? (tick all that apply)

Check all that apply.

- ☐ Living alone
- ☐ Living with spouse/ partner
- ☐ Living with parents
- ☐ Living with friends
- ☐ With children 5 years and under
- ☐ With children between 6 and 16 years of age

7. What is your employment status (tick all that apply)

Check all that apply.

- [ ] not employed, not looking for work
- [ ] not employed, looking for work
- [ ] Employed, part-time
- [ ] Employed, full time
- [ ] Self-employed
- [ ] Full-time Student
- [ ] Retired

8. What is your household income?

Mark only one oval.

- ◯ less than £16,000
- ◯ £16,001 - £22,000
- ◯ £22,001 - £31,000
- ◯ £31,001 - £44,000
- ◯ £44,001 - 60,000
- ◯ £60,001 - 70,000
- ◯ 70,001 - 80,000
- ◯ 80,000 +

Appendix 6: Breq-2 Questionnaire

EXERCISE REGULATIONS QUESTIONNAIRE (BREQ-2)

Age: _____ years **Sex: male female (please circle)**

WHY DO YOU ENGAGE IN EXERCISE?

We are interested in the reasons underlying peoples' decisions to engage, or not engage in physical exercise. Using the scale below, please indicate to what extent each of the following items is true for you. Please note that there are no right or wrong answers and no trick questions. We simply want to know how you personally feel about exercise. Your responses will be held in confidence and only used for our research purposes.

		Not true for me		Sometimes true for me		Very true for me
1	I exercise because other people say I should	0	1	2	3	4
2	I feel guilty when I don't exercise	0	1	2	3	4
3	I value the benefits of exercise	0	1	2	3	4
4	I exercise because it's fun	0	1	2	3	4
5	I don't see why I should have to exercise	0	1	2	3	4
6	I take part in exercise because my friends/family/partner say I should	0	1	2	3	4
7	I feel ashamed when I miss an exercise session	0	1	2	3	4
8	It's important to me to exercise regularly	0	1	2	3	4
9	I can't see why I should bother exercising	0	1	2	3	4

		Not true for me		Sometimes true for me		Very true for me
10	I enjoy my exercise sessions	0	1	2	3	4
11	I exercise because others will not be pleased with me if I don't	0	1	2	3	4
12	I don't see the point in exercising	0	1	2	3	4
13	I feel like a failure when I haven't exercised in a while	0	1	2	3	4
14	I think it is important to make the effort to exercise regularly	0	1	2	3	4
15	I find exercise a pleasurable activity	0	1	2	3	4
16	I feel under pressure from my friends/family to exercise	0	1	2	3	4
17	I get restless if I don't exercise regularly	0	1	2	3	4
18	I get pleasure and satisfaction from participating in exercise	0	1	2	3	4
19	I think exercising is a waste of time	0	1	2	3	4

Thank you for taking part in our research

David Markland PhD, C.Psychol
School of Sport, Health & Exercie Sciences
University of Wales, Bangor
E-mail: d.a.markland@bangor.ac.uk
April 2000

Appendix 7: EMI-2 Questionnaire

The Exercise Motivations Inventory - 2 (EMI-2)

On the following pages are a number of statements concerning the reasons people often give when asked why they exercise. *Whether you currently exercise regularly or not,* please read each statement carefully and indicate, by circling the appropriate number, whether or not each statement *is true* for you personally, *or would be true* for you personally if you did exercise. If you do not consider a statement to be true for you at all, circle the '0'. If you think that a statement is very true for you indeed, circle the '5'. If you think that a statement is partly true for you, then circle the '1', '2', '3' or '4', according to how strongly you feel that it reflects why you exercise or might exercise.

Remember, we want to know why *you personally* choose to exercise or might choose to exercise, not whether you think the statements are good reasons for *anybody* to exercise.

It helps us to have basic personal information about those who complete this questionnaire. We would be grateful for the following information:

Your age ..... years **Your gender ..... male/female**

		Not at all true for me					**Very true for me**
Personally, I exercise (or might exercise) …							
1	To stay slim	0	1	2	3	4	5
2	To avoid ill-health	0	1	2	3	4	5
3	Because it makes me feel good	0	1	2	3	4	5
4	To help me look younger	0	1	2	3	4	5
5	To show my worth to others	0	1	2	3	4	5
6	To give me space to think	0	1	2	3	4	5

	Personally, I exercise (or might exercise) …	Not at all true for me					Very true for me
7	To have a healthy body	0	1	2	3	4	5
8	To build up my strength	0	1	2	3	4	5
9	Because I enjoy the feeling of exerting myself	0	1	2	3	4	5
10	To spend time with friends	0	1	2	3	4	5
11	Because my doctor advised me to exercise	0	1	2	3	4	5
12	Because I like trying to win in physical activities	0	1	2	3	4	5
13	To stay/become more agile	0	1	2	3	4	5
14	To give me goals to work towards	0	1	2	3	4	5
15	To lose weight	0	1	2	3	4	5
16	To prevent health problems	0	1	2	3	4	5
17	Because I find exercise invigorating	0	1	2	3	4	5
18	To have a good body	0	1	2	3	4	5
19	To compare my abilities with other peoples'	0	1	2	3	4	5
20	Because it helps to reduce tension	0	1	2	3	4	5
21	Because I want to maintain good health	0	1	2	3	4	5
22	To increase my endurance	0	1	2	3	4	5
23	Because I find exercising satisfying in and of itself	0	1	2	3	4	5

		Not at all true for me					Very true for me
Personally, I exercise (or might exercise) …							
24	To enjoy the social aspects of exercising	0	1	2	3	4	5
25	To help prevent an illness that runs in my family	0	1	2	3	4	5
26	Because I enjoy competing	0	1	2	3	4	5
27	To maintain flexibility	0	1	2	3	4	5
28	To give me personal challenges to face	0	1	2	3	4	5
29	To help control my weight	0	1	2	3	4	5
30	To avoid heart disease	0	1	2	3	4	5
31	To recharge my batteries	0	1	2	3	4	5
32	To improve my appearance	0	1	2	3	4	5
33	To gain recognition for my accomplishments	0	1	2	3	4	5
34	To help manage stress	0	1	2	3	4	5
35	To feel more healthy	0	1	2	3	4	5
36	To get stronger	0	1	2	3	4	5
37	For enjoyment of the experience of exercising	0	1	2	3	4	5
38	To have fun being active with other people	0	1	2	3	4	5

Please Turn Over

		Not at all true for me					Very true for me
Personally, I exercise (or might exercise) …							
39	To help recover from an illness/injury	0	1	2	3	4	5
40	Because I enjoy physical competition	0	1	2	3	4	5
41	To stay/become flexible	0	1	2	3	4	5
42	To develop personal skills	0	1	2	3	4	5
43	Because exercise helps me to burn calories	0	1	2	3	4	5
44	To look more attractive	0	1	2	3	4	5
45	To accomplish things that others are incapable of	0	1	2	3	4	5
46	To release tension	0	1	2	3	4	5
47	To develop my muscles	0	1	2	3	4	5
48	Because I feel at my best when exercising	0	1	2	3	4	5
49	To make new friends	0	1	2	3	4	5
50	Because I find physical activities fun, especially when competition is involved	0	1	2	3	4	5
51	To measure myself against personal standards	0	1	2	3	4	5

Thank you for completing this questionnaire

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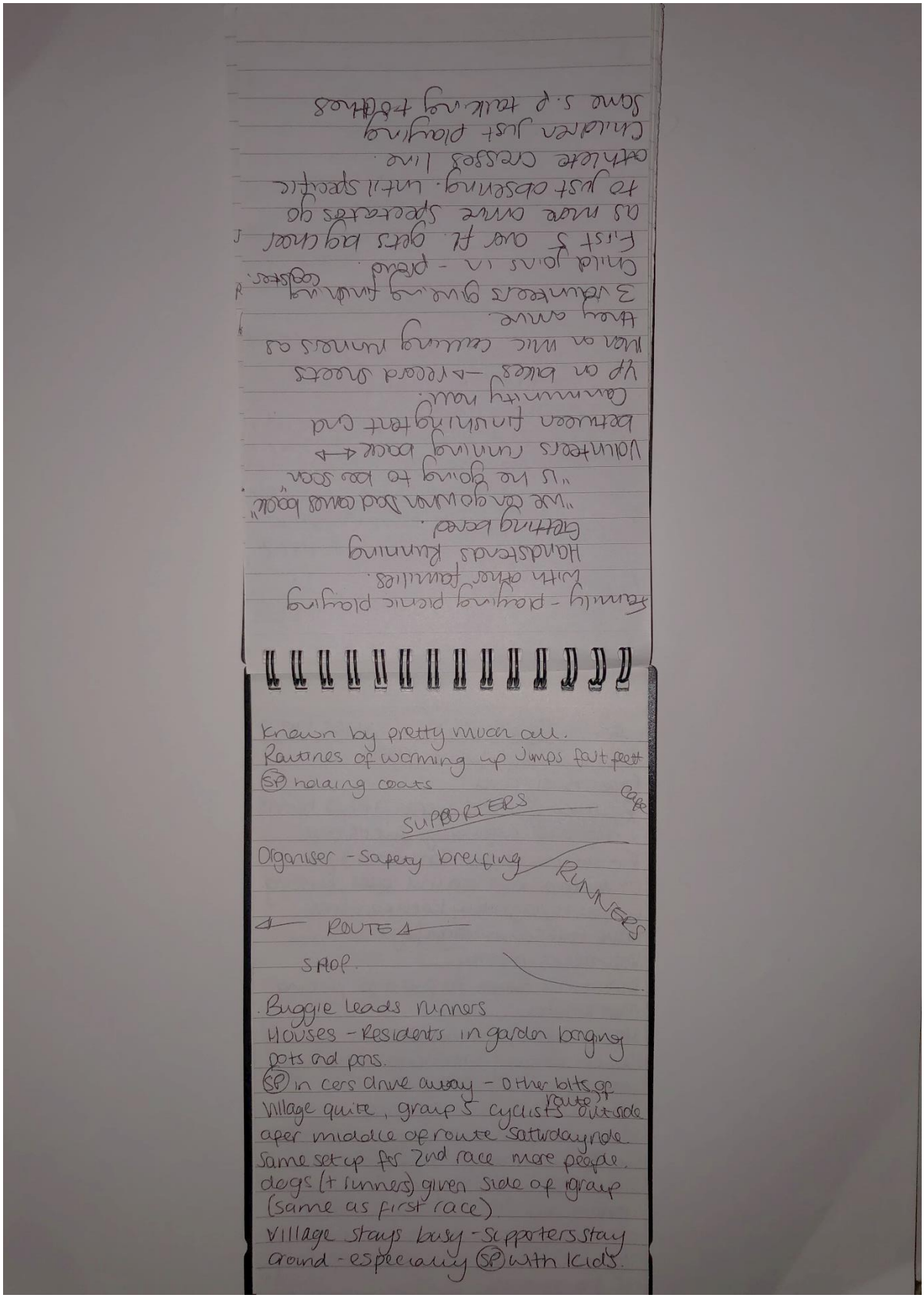
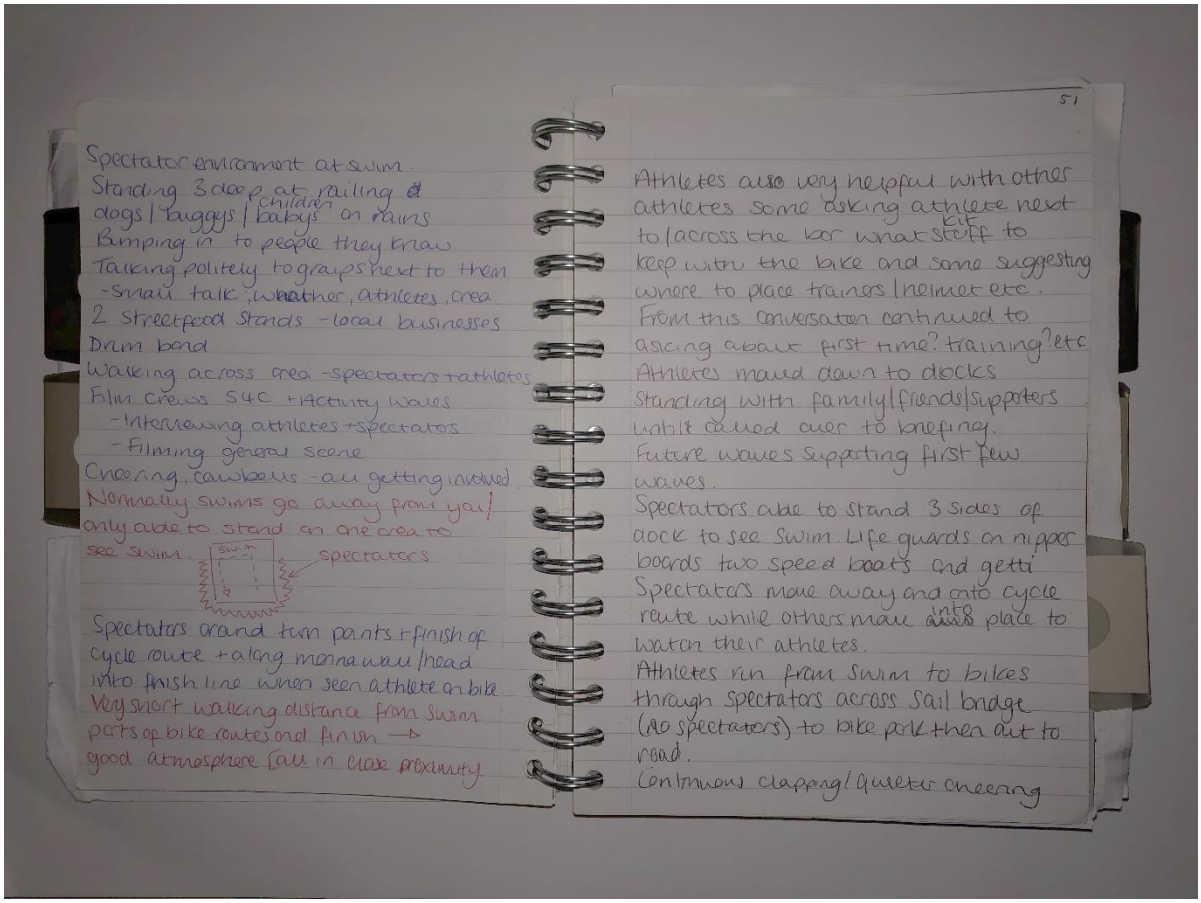
Appendix 8: Field-note example pages



Resiaents out. Sarah (in buggy) shawing
cyclist direction at junction and
stewing cars driving through Village.
Cafe doing well V busy.
food station in Mchlog com hall
Cyclists stopped w family @ Cafe.
All cyclists together. all different
distances.
Road users not minding cyclists giving
them good distances when are talking
THANK YOUS!!
Use of grass area for families x 7 x 3
Cafe is so busy.
'not expecting cyclists but definitley
expecting families + supporters.
Cyclists sitting at Cafe know the same
cyclists in event "lives near me"
"Seen them at loads of events"
Children behaving really well
More here for children to do
climb run play area.
-not intrested in race.

playing closer to the road
M watching kids + watching for
athlete. "He will be here now"
keeplooking" "You'll miss him"
Cadet group at food station.
People from area came down to
watch
-wouldn't watch it from anywhere
else - just because they live here.
Cyclist in Groups of at least 2s
Kids ~~always~~ again get bored of area and
mother doesn't want to move on
Promising and Threatening everything
No spectators in this area
Same in maencloclog (3 at most)
All roads open. Signs all along
Pembs - permanent feature now
Groups of cyclists at Mchlog not
involved in race - group of 8.
"~~Best~~ Good day to cycle because
residents awere of cyclists on routes
anyway."

Appendix 9: Field-note report notebook

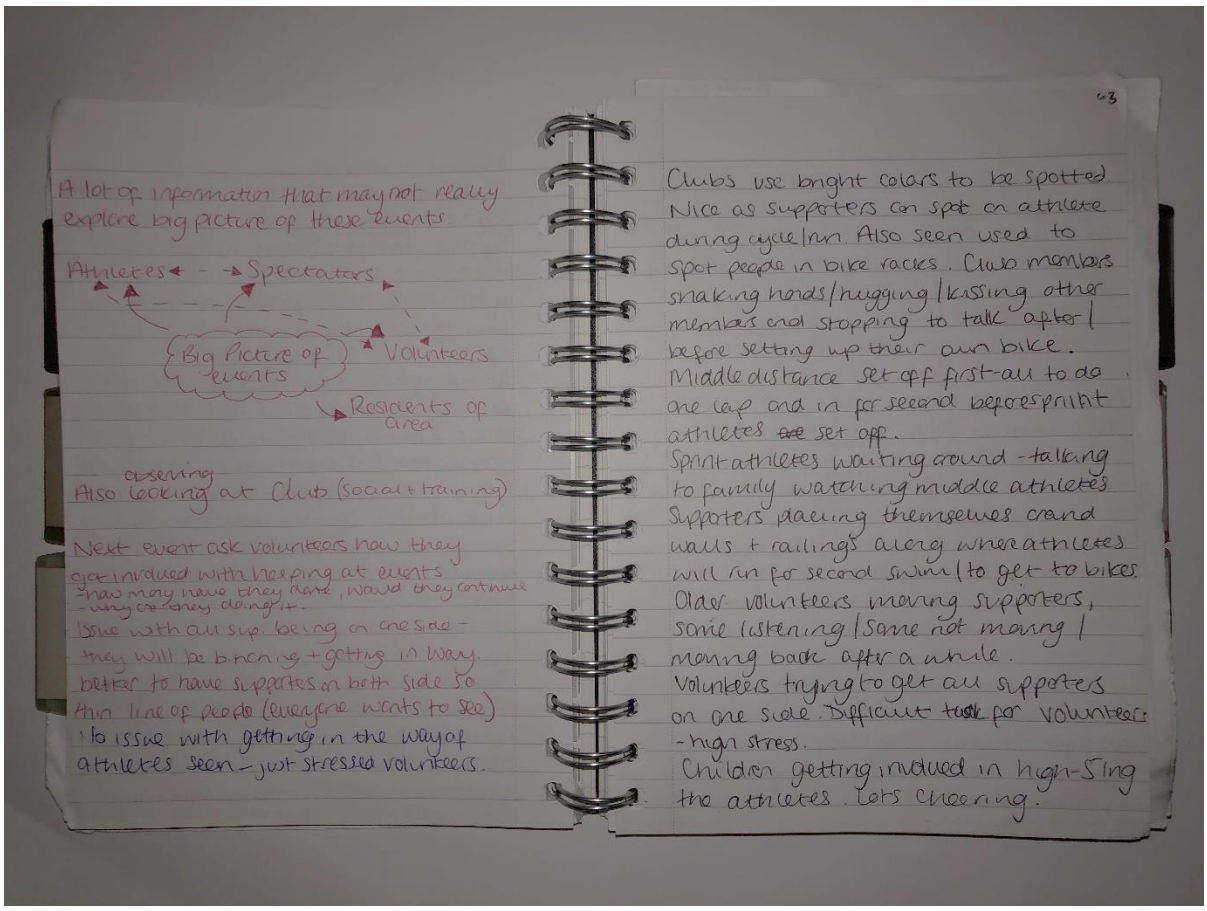


Spectator environment at swim.
Standing 3 deep at railing @ children
dogs / buggys / babys on rains
Bimping in to people they know
Talking politely to groups next to them
- Small talk, weather, athletes, area
2. Streetfood stands - local businesses
Drum band
Walking across area - spectators + athletes
Film crews S4C + Activity waves
- Interviewing athletes + spectators
- Filming general scene
Cheering, cowbells - all getting involved
Normally swims go away from you/
only able to stand on one area to
see swim.

Spectators around turn points + finish of
cycle route + along marina wall/head
into finish line when seen athlete on bike
Very short walking distance from swim
parts of bike routes and finish →
good atmosphere fall in close proximity

51

Athletes also very helpful with other
athletes some asking athlete next
to/across the bar what stuff to
keep with the bike and some suggesting
where to place trainers/helmet etc.
From this conversation continued to
asking about first time? training? etc
Athletes mass down to docks
Standing with family/friends/supporters
until called over to briefing.
Future waves supporting first few
waves.
Spectators able to stand 3 sides of
dock to see swim. Life guards on nipper
boards two speed boats and getti
Spectators move away and onto cycle
route while others move into place to
watch their athletes.
Athletes run from swim to bikes
through spectators across sail bridge
(no spectators) to bike park then out to
road.
Continuous clapping/quieter cheering



A lot of information that may not really explore big picture of these events.

Athletes ↔ Spectators

Big Picture of Events

Volunteers

Residents of area

Also observing/looking at Club (social + training)

Next event ask volunteers how they got involved with helping at events - how many have they done, would they continue - why are they doing it.

Issue with all sup. being on one side - they will be barriers + getting in way. better to have supporters on both side so thin line of people (everyone wants to see) No issue with getting in the way of athletes seen - just stressed volunteers.

3

Clubs use bright colors to be spotted. Nice as supporters can spot an athlete during cycle/run. Also seen used to spot people in bike racks. Club members shaking hands/hugging/kissing other members and stopping to talk after/before setting up their own bike. Middle distance set off first - all to do one lap and in for second before sprint athletes ~~are~~ set off.

Sprint athletes waiting around - talking to family watching middle athletes. Supporters placing themselves around walls + railings along where athletes will run for second swim/to get to bikes. Older volunteers moving supporters, some listening/some not moving/moving back after a while.

Volunteers trying to get all supporters on one side. Difficult ~~task~~ for volunteers - high stress.

Children getting induced in high-5ing the athletes. Lots cheering.

Appendix 10: Interview guide and structure

Athlete Interviews

Getting to know me:

Outline the study, consent form, and recording

Getting to know you (small life history/ physical literacy journey):

How did you get into taking part in _____ [events, physical activities around events]

More questions on how far back they go.

Life history/physical literacy whitehead/taplin

Go through phases

Younger age – with family

High school age

18-30

Adult 30-65

65+

What was physical activity like in primary and secondary school? After school? With friends with family when you were younger? Always lived in Pembs? And or what was physical activity like in the location? What was going on in the area?

Details on MPSE physical activity engagement

What started it? What continues it?

Depending on what is said:

Friends – social interactions; family – support; individual – motivations, uses of physical activity; follow trail.

Any favourite stories from taking part, events, etc.

Any issues you have faced from taking part?

How has the events changed the community/ culture/ activities around Pembrokeshire?

Follow trails

How do you think it benefits the community?

What issues do the community face from the events?

Why do you think is has been and continues to be so popular?

Pembrokeshire as MPSE community

- Why do you think there has been such an uptake
- Do you think Pembrokeshire is set up for these events
- What has changed over time?
- What do you think the future looks like for the community and MPSEs
- What do you think the role of organisations and the council should be? What are they already doing?

Trail questions

Can you elaborate on that?

Where do you think that came from?

And?

Start sentences… and when you were in…/ and your wife would [at events]…

What did that mean for you?

Why do you think that is/was?

Can you explain that feeling a bit more?

Why?

How?

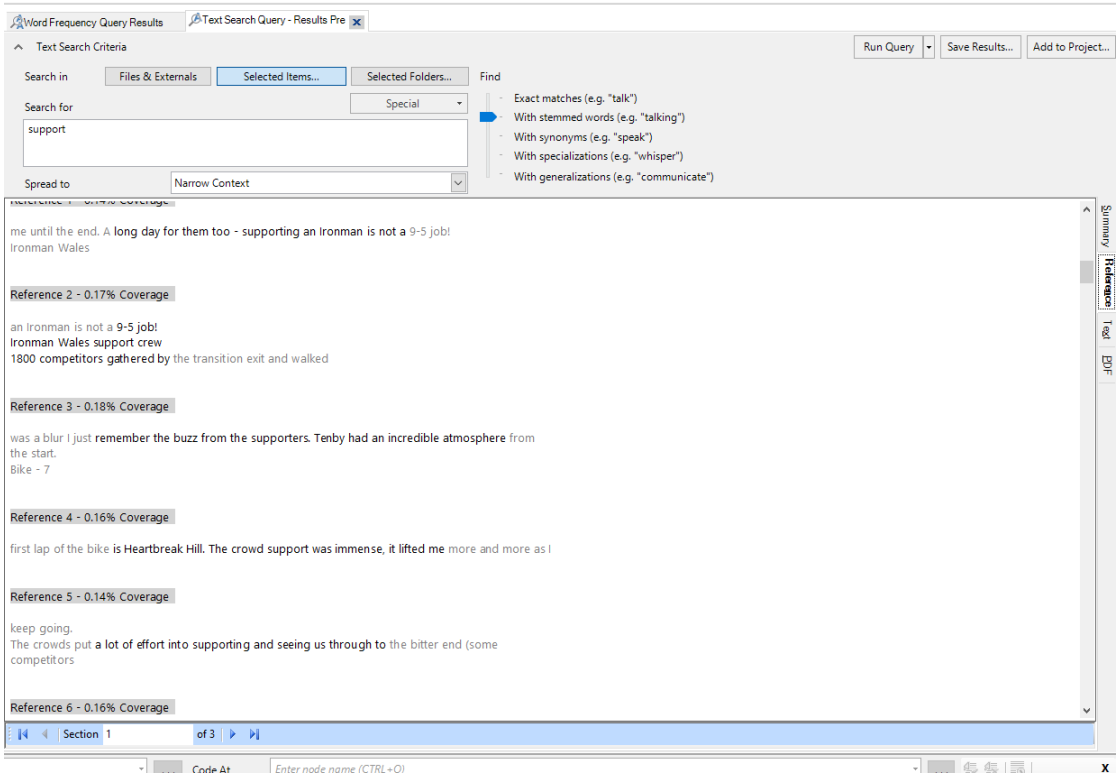
Statements to encourage… that's great…. That's mad…. No, really?

Appendix 11: Word Frequency Example

Word Frequency Query Results

Word	Lengt	Count	Weighted Percentage (%	Similar Words
ironmans	8	634	1.17	@ironman, ironman, ironman', 'ironman, ironman', ironmans
course	6	234	0.43	course, course', courses
finish	6	194	0.36	finish, finished, finisher, finishers, finishes, finishing
people	6	192	0.35	people, people'
support	7	160	0.29	support, supported, supporter, supporter', supporters, supporters', supporting, supportive, supports
second	6	157	0.29	second, secondly, seconds, seconds'
athletes	8	143	0.26	athlete, athletes, athletes', athletic, athletics
around	6	141	0.26	around
really	6	141	0.26	really
training	8	138	0.25	trained, training, trains
minutes	7	138	0.25	minute, minutes
comments	8	135	0.25	comment, commentating, commenting, comments
running	7	132	0.24	running
marathon	8	131	0.24	marathon, marathon', marathoners, marathons
triathlon	9	128	0.24	triathlon, triathlons
starts	6	119	0.22	start', started, starting, starts
reports	7	105	0.19	report, reporter, reporters, reporting, reports
pembrokeshir	13	88	0.16	pembrokeshire

Appendix 12: Word Search Example



Appendix 13: NVIVO nodes

Phase Analysis

Name	Files	References	Created On
2nd Analysis Reviewing potential themes	0	0	28/03/2020 14:55
1. Indivudual benefits from taking part	20	97	28/03/2020 15:41
behaviour change [also linked to com changes]	3	3	29/03/2020 13:53
Identity	4	6	01/04/2020 11:33
Mental health, wellbeing, self care	13	43	19/02/2020 15:56
Sense of flow	3	3	01/04/2020 17:01
Motivation	14	30	01/04/2020 11:47
Relationship with MPSE	6	7	01/04/2020 14:35
2. Social capital evidence	18	83	28/03/2020 15:14
1 meeting people	5	6	06/01/2021 18:52
2 club	4	7	06/01/2021 18:54
3 general ripple	5	9	06/01/2021 19:10
3a event ripple	2	2	06/01/2021 19:28
3b family friends ripple	4	9	06/01/2021 19:50
8 Rural community	9	14	06/01/2021 19:25
9 ...as supportF	15	35	28/03/2020 15:33
taking part together (training, clubs, events)	13	22	28/03/2020 15:38
with knowledge	6	7	28/03/2020 15:37
checked not needed	0	0	06/01/2021 18:56
3. Community and culture	21	163	28/03/2020 16:07
Change, Identity and ownership	18	127	06/01/2021 19:07
...links to negative	5	14	28/03/2020 17:49
Embracing physical activity...its having a ripple affect isnt it	5	8	30/03/2020 19:10
evidence of change	9	15	29/03/2020 13:30
Identity and ownership	10	21	28/03/2020 17:01
Nature of community	13	24	30/03/2020 18:46
possible links to SC	13	45	28/03/2020 17:10
Volunteering	4	6	30/03/2020 10:45
4. Physical environment as resource	28	71	28/03/2020 14:55
more use of PE because of events	2	3	28/03/2020 16:13
on our doorstep	12	23	29/03/2020 16:13
5. Events	7	8	01/04/2020 15:57
atmosphere at events- festival carnival party	18	27	10/05/2020 13:08
benefits for the community	34	63	10/05/2020 12:59
Event relationship with soc and com	9	11	28/03/2020 17:24
negativies	15	54	10/05/2020 13:04
role of community in successful events culture	22	50	10/05/2020 13:01
Starter events or activities	1	1	01/04/2020 16:00
Events	24	109	22/02/2020 19:34
human and social mixing	2	4	29/12/2020 20:29
IMW as Phenomenon	59	210	14/02/2020 16:20
Social Ecology	36	109	14/02/2020 16:09
Stories	2	4	11/03/2020 11:03

Appendix 14: Examples of Analysis by Hand (Individual and Social resources for PA)