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Psychosocial wellbeing in active older adults: A systematic review of qualitative
literature

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Abstract

Physical activity and wellbeing in older adults is a global priority in combating negative economic consequences associated with population ageing. Quantitative research using a medicalised model clearly associates physical activity with physiological health benefits. However it is argued that a review of qualitative literature exploring individual experiences of active older adults can provide important insights into physical activity, ageing and wellbeing; specifically, how discourses of ageing and self-identity may interact with physical activity levels. A literature search on electronic databases PsycARTICLES, PsycINFO, SPORTDiscus and ProQuest was used to identify qualitative studies of older adults who exercise or engage in competitive sport. Findings reveal both groups tend to resist dominant negative stereotypes of ageing and view physical activity as central to self-identity. Yet approaches to ageing varied with the competitive sport group adopting a more negative view of the ageing process. Whilst results suggest that different levels of physical activity may impact on the psychosocial wellbeing of older adults, inconsistent definitions of exercise and competitive sport make it impossible to group these differences according to specific physical activity levels. More precise definitions of physical activity constructs in future research may provide a better understanding of these differences.

Keywords: physical activity, exercise, sport, ageing, older adults

Psychosocial wellbeing in Active Older Adults:

A systematic review of qualitative literature

Fostering good health in older age is now considered an essential response to the global phenomenon of population ageing (WHO, 2012). Physical activity has been identified as a key component of good health in old age (Meisner, Dogra, Logan, Baker & Weir, 2010); physical health benefits include lower rates of cardiovascular disease (Leon, 2012), diabetes prevention and cancer prevention (Bauman, 2004), and improved cognitive functioning (Colcome & Kramer, 2003). It is predominantly these types of health outcome indicators that have led to government recommendations of physical activity levels in older adults (Sims et al., 2006), specifically that older adults aged 65 years or over “should accumulate at least 30 minutes of moderate intensity physical activity on most, preferably all, days” (p. 5, Australian Government Department of Health and Ageing, 2005). The Australian Government Department of Health and Ageing (2005) further recommends that “Older people who continue to enjoy a lifetime of vigorous physical activity should carry on doing so in a manner suited to their capability into later life” (p. 5). Whilst the physical health benefits of an active lifestyle should not be ignored, what is absent in the construction of these recommendations is the consideration of the psychosocial impacts of different levels of physical activity on the individual and society.

The strength in findings for health benefits associated with older people who engage in physical activity reflects the domination of quantitative studies and the biomedical model in existing research (e.g., Colcome & Kramer, 2003; Hollman, Struder, Tagarakis, & King, 2007; Muscari et al. 2010). As a result literature reviews have also focused on the medicalised aspects of physical activity and ageing (Bauman, 2004; Cyarto, Moorhead, & Brown, 2004; King, Rejeski, & Buchner, 1998). Whilst these studies provide a strong working platform for further exploration, the medicalisation of ageing has been criticised for

ignoring cultural, social and psychological aspects (Dionigi, 2006a; Phoenix & Grant, 2009). Furthermore, in a systematic review of 44 studies on motivators and barriers for physical activity in older adults, Baert, Gorus, Mets, Geerts, and Bautmans (2011) identified 61 motivators and 59 barriers; this highlights the complexity of this phenomenon, or as Phoenix and Grant (2009) argue ‘clearly, aging and physical activity cannot be reduced to just one way of knowing’ (p. 372).

In recent years, a growing trend for qualitative research, exploring individual narratives and psychosocial wellbeing in physically active older adults has emerged in the literature (Eman, 2012; Liechty, Dahlstrom, Sveinson, Stafford Son, & Rossow-Kimball, 2014; Pfister, 2012; Pike, 2011; Price, Greer, & Tucker, 2013). This literature has predominantly identified two physical activity groups within an ageing adult demographic; the first being older adults who engage in exercise; the second being older adults who participate in competitive sport. For the purposes of this review exercise refers to nonfunctional physical activity of a moderate or high intensity (Australian Government Department of Health, 2014); competitive sport incorporates a wide range of athletic activities including both individual and team sports requiring training and preparation so it may be played at a high level of competition such as state, national and world events (Hodge, Allen, & Smellie, 2008).

Older exercisers and older sport competitors are often seen as promoters of successful ageing and role models to other seniors, with suggestions that these groups may be crucial to the deconstruction of ageist stereotypes (Roters, Logan, Meisner, & Baker, 2010). However, some studies have found that older athletes may reinforce negative stereotypes potentially leading to greater prejudice towards physically inactive older adults (Eman, 2012; Heo, Culp, Yamada, & Won, 2013; Pfister, 2012; Pike, 2011). This suggests that there may be crucial differences between discourses of ageing amongst older exercisers and older sport

competitors with the latter potentially having a negative effect on the ageing population. Baker, Fraser-Thomas, Dionigi, and Horton (2010) further suggest that an athletic self-identity may lead to negative personal impacts with the potential for loss of physical capability simultaneously leading to a loss of self-identity.

Whilst it remains clear that engagement in physical activity has many medical health benefits for an ageing population, the current lack of literature reviews exploring psychosocial wellbeing amongst active older adults does not provide government and health sectors with comprehensive information about all the potential outcomes of physical activity. The aim of this study was therefore to review qualitative literature of older adults who exercise, and older adults participating in competitive sport, in order to compare discourses of ageing and self-identity. By exploring potential differences in the psychosocial wellbeing of these two cohorts, this review may offer a new perspective on the health outcomes of physical activity and provide support for the diversity of individual experience; both of which are imperative in the consideration of governmental guidelines for the promotion of physical activity in future.

Method

All stages of the literature search, including screening and data extraction were carried out solely by the first author. PsycARTICLES, PsycINFO, SPORTDiscus and ProQuest were screened on 27 April 2014. The following keywords were used to search article abstracts: 'sport*' OR 'athlete' OR 'physical activity' OR 'exercising', AND 'older' OR 'ageing', AND 'interview*' OR 'stories' OR 'narratives' OR 'qualitative', NOT 'young' OR 'child*' OR 'adolescent'. In addition the keywords 'self' OR 'identity' were used to search text. All dates from database inception through to the 2014 screening date were searched. This action produced 408 hits; titles and abstracts of all articles were then screened

for relevance. This resulted in 24 full text articles being scanned for eligibility against inclusion/exclusion criteria.

Studies were included if they met the following criteria: written in English; qualitative in design; sample aged 55 years and older; defined competitive sport, exercise, or physical activity; addressed the constructs of ageing and self-identity (even if part of a larger study). Studies where sample selection was based on participants having a particular physical disability or medical condition (e.g., diabetes or blindness) were excluded as it is conceivable that the lived experiences of these participants could be somewhat defined by their disability or medical condition and would therefore be unique to that cohort. A further exclusion criterion was the use of exercise or competitive sport as an intervention as these studies may include typically inactive older adults who took up exercise or competitive sport only as part of the study.

Twelve of the 24 studies were excluded because they did not meet eligibility criteria (see Figure 1). A final step in the search process was to scan reference lists of all included articles. From this one additional article was included.

The remaining 13 studies were submitted for data extraction using a data extraction form; the following information was acquired through this process: article title; authors; publication title and date; aims of the study; study design; sample characteristics (sample size, gender, notable features); recruitment; analysis; conclusions/results; study limitations and strengths.

Critical evaluation of the studies was carried out using the Methodology checklist for qualitative studies from the National Institute for Health and Clinical Excellence (NICE; NICE, 2009). This checklist is recognised as containing the ‘broadly accepted principles that characterise qualitative research and may affect its validity’ (NICE, 2009, p. 213). The Methodology checklist: Qualitative studies, evaluates a study’s theoretical approach, study

design, data collection, validity, analysis, and ethics. Study overviews and themes are summarised in tables 1-3.

To analyse study results the authors first extracted findings relating to discourses of ageing and self-identity; this focused on a combination of illustrative quotes and researchers' interpretations. Second, the authors looked for links and patterns between within-group studies that would provide a more comprehensive understanding of the data. From this process findings from within-group studies were organised into thematic categories. Finally, once thematic categories had been developed for both groups, the first three steps in this process were repeated to create overarching between-group themes.

INSERT *Figure 1*.

Results

Table 1 presents an overview of the 13 studies included in this review and summarises aims, data collection, methods and settings, sample characteristics, definitions of exercise and competitive sport, and notable limitations or quality issues. The earliest study that was reviewed was conducted in 2001 (Grant, 2001) which demonstrates that qualitative research in this field has only been adopted recently. The most recent studies were published in 2013 (Dionigi, Horton & Baker, 2013a, 2013b). The 13 studies involved a total of 595 participants. Sample sizes of the studies varied from one participant to over 100 participants. There was one case study with a single participant (Roper, Molnar, & Wrisberg, 2003); nine studies had more than one but fewer than 50 participants (Dionigi, 2006b; Dionigi, Horton, & Baker, 2013a, 2013b; Dionigi, Horton, & Bellamy, 2011; Grant, 2001; Leavy & Aberg, 2010; Stathi, Fox, & McKenna, 2002; Whaley & Ebbeck, 2002; Wing, 2008); and three studies had over 100 participants (Dionigi, 2002a, 2002b; Dionigi & O'Flynn, 2007).

All studies used purposive sampling to recruit participants. Seven studies recruited participants on site from either regional, national or world master's games events (Dionigi, 2002a, 2002b; Dionigi, 2006b; Dionigi, Horton, & Baker, 2013a, 2013b; Dionigi & O'Flynn, 2007; Grant, 2001); one study specifically recruited the single participant because of his unique sporting career (Roper, Molnar, & Wrisberg, 2003); two studies recruited participants from organised exercise settings, for example exercise classes (Stathi, Fox, & McKenna, 2002; Whaley & Ebbeck, 2002) ; and three studies recruited participants through senior's centres or retirement communities (Dionigi, Horton, & Bellamy, 2011; Leavy & Aberg, 2010; Wing, 2008). Across the 13 studies participants represented six countries; Australia (4 studies), New Zealand (4 studies) and Canada (4 studies) were most prominent, followed by the United States of America (3 studies); with Ireland and Sweden represented in one study each.

INSERT Table 1.

With regards to defining competitive sport and exercise, Table 1 shows that older competitive sportspeople were frequently defined as master's games athletes, whereas definitions of exercise showed greater variation across studies with no accepted criteria or distinct definition. All studies conducted semi-structured or in depth interviews with participants. Additional data collection methods included observation (6 studies), journal (2 studies), focus group/group interviews (2 studies), field notes (1 study), and questionnaire (1 study). Data collection occurred at exercise/sport venues (7 studies), in homes of participants (5 studies), and/or in other private settings (3 studies).

Studies were divided into two groups according to whether the sample was defined as engaging in exercise or competitive sport. This grouping strategy was based on previous research that suggests that differences may exist between athletes and nonathletes (Eman, 2012; Phoenix, Faulkner, & Sparkes, 2005). Grouping firstly allowed for the identification of

themes exclusive to each population. Additionally it allowed for the identification of convergent and divergent themes across the populations.

The exercise group consisted of five studies exploring perceptions and impact of exercise/physical activity (Leavy & Aberg, 2010; Stathi, Fox, & McKenna, 2002), meanings of ageing (Dionigi, Horton, & Bellamy, 2011), the relationship between exercise and ageing stereotypes (Wing, 2008), and exercise and identity (Whaley & Ebbeck, 2002). Dionigi et al. (2011) were the only authors to use theoretical frameworks to explore meanings of ageing; this study used a combination of the biomedical model, psychosocial model, and biographical model. All studies collected data via interviews, with two studies triangulating data collection methods via questionnaires (Whaley & Ebbeck, 2002; Wing, 2008), observation and journal (Whaley & Ebbeck, 2002). Whilst all samples were described as physically active older adults, definitions of exercise and physical activity varied greatly across all five studies with some definitions being more explicit and rigid than others.

Results from these studies produced three major themes: exercise identity, successful ageing and sense of 'old' (see Table 2); however within these themes some findings were inconsistent. In some studies exercise was viewed as an inherent part of the participant's self-identity or a means to producing a new identity (Leavy & Aberg, 2010; Wing, 2008). Whereas in another study authors found that participant's viewed the term 'exerciser' as a limiting descriptor of self with other activities considered just as important to the construction of their self-identity (Whaley & Ebbeck, 2002).

Most participants within the exercise group described successful ageing in terms of maintaining social contact, having a positive attitude and being content with life (Dionigi et al., 2011; Leavy & Aberg, 2010; Stathi, Fox, & McKenna, 2002; Wing, 2008), however in one study highly active participants specifically defined successful ageing in terms of exercise (Dionigi, Horton, & Bellamy, 2011). The study by Dionigi, Horton, and Bellamy

(2011) is unique within this group for distinguishing between highly active, moderately active and inactive participants. This grouping allowed for a within study comparison and found a difference between moderately active participants and highly active participants. Moderately active participants were more likely to define successful ageing as 'keeping busy', which related to a variety of activities, whereas highly active participants believed that successful ageing was directly linked to exercise and physical activity.

INSERT Table 2

Consistencies were found in participants' beliefs relating to ageing stereotypes and the definition of 'old'. Most participants spoke of someone else as being 'old' and did not see themselves as fitting the definition (Dionigi, Horton, & Bellamy, 2011; Whaley & Ebbeck, 2002; Wing, 2008). According to participants, 'old' was associated with negatives such as sedentary behaviour and physical limitations. Dionigi et al. (2011) found that while all physically active participants resisted stereotypes, negative discourses of ageing were more likely to be reproduced amongst highly active older adults who tended to perpetuate a fear of health risks associated with ageing by viewing old people as 'weak'. Whilst Stathi, Fox, and McKenna (2002) did not specifically address definitions of 'old', participants were less resistant to negative discourses of ageing, noticing that their bodies were 'running down'.

Inconsistencies in these studies could be due to large differences in the definition of exercise as a participant criterion. For example, Stathi et al. (2002) only required participants to be engaged in organised exercise once a week with no minimum length of time or intensity level nominated, whereas Dionigi, Horton, and Bellamy (2011) were more explicit in requiring highly active participants to engage in moderate to high intensity exercise at least 3 days a week for a minimum 30 minutes each time. However, inconsistencies may also demonstrate the value of individual experiences and suggest that psychosocial wellbeing is too complex to be understood by applying a single definition to the construct of exercise.

The within study comparison of moderately active and highly active participants was a noteworthy strength of Dionigi, Horton, and Bellamy's study design. This comparison revealed that differences in subjective experiences did exist between those who engaged in different levels of exercise. This suggests that results may be limited in their generalizability to all physically active older adults due to variance in both individual experience and exercise definition.

The findings from two studies (Stathi, Fox, & McKenna, 2002; Whaley & Ebbeck, 2002) were viewed with caution for several reasons; first, Whaley and Ebbeck (2002) were participant observers (disguised) engaging in participant exercise classes for two weeks prior to interviewing, their engagement with participants increased the risk of both interviewer bias and response bias. Secondly, emerging themes in the Whaley and Ebbeck study were not made explicit and very few extracts from participant interviews were included to support study findings, this made it difficult to substantiate the study's results. In the Stathi et al. (2002) study, whilst they did provide several supporting extracts, these were unreferenced and often single word or short statement quotes which made it difficult to contextualise participant statements; as a result it was again difficult to substantiate findings.

It was noted that three studies relied on self-reported levels of exercise (Dionigi, Horton, & Bellamy, 2011; Leavy & Aberg, 2010; Wing, 2008). As a physically active lifestyle is often seen as an aspirational way of life, it is possible that social desirability may have inflated these self-reports. Additionally, three studies did not explicitly consider the role of the researcher (Dionigi, Horton, & Bellamy, 2011; Leavy & Aberg, 2010; Stathi, Fox, & McKenna, 2002). In qualitative research there is acknowledgment that the researcher may profoundly affect data, as such reflexivity (consideration for the role of the researcher) is integral in providing clear consideration and transparency of researcher influence. As this was absent, it must be acknowledged that there may have been a degree of researcher

influence that was not identifiable to the authors of this review. Consideration was also given to gender differences in study design. Dionigi, Horton, and Bellamy's (2011) sample was exclusively female, whilst Whaley and Ebbeck (2002) also had a higher female sample; however in reviewing previous research there was no indication that results of psychosocial factors varied significantly according to gender.

The second group contained eight studies exploring participants' experiences within the context of competitive sport (Dionigi, 2002a, 2002b; Dionigi, 2006b; Dionigi, Horton, & Baker, 2013a, 2013b; Dionigi & O'Flynn, 2007; Grant, 2001; Roper, Molnar, & Wrisberg, 2003). With the exception of the single case study of a competitive runner (Roper, Molnar, & Wrisberg, 2003), samples in all other studies were heterogeneous in terms of sport representation (Dionigi, 2002a, 2002b; Dionigi, 2006b; Dionigi, Horton, & Baker, 2013a, 2013b; Dionigi & O'Flynn, 2007; Grant, 2001); participants competed in swimming, squash, track and field, orienteering, weightlifting, tennis, badminton, cycling, triathlon, croquet, bowls, athletics, golf, running, indoor rowing, netball, baseball, ice hockey, archery, canoeing, soccer, softball, field hockey, basketball, touch football, sport aerobics and race walking. All studies captured data through semi-structured or in depth interviews; five of those studies also collected data via observation or focus groups as a form of triangulation to improve the study's reliability (Dionigi, 2002a, 2002b; Dionigi & O'Flynn, 2007; Grant, 2001; Roper, Molnar, & Wrisberg, 2003).

Four studies explicitly aimed to capture and analyse participant's accounts and experiences of ageing processes and discourses (Dionigi, 2006b; Dionigi, Horton, & Baker, 2013b; Dionigi & O'Flynn, 2007; Roper, Molnar, & Wrisberg, 2003); three studies aimed to explore meanings attributed to or understood within the context of sport (Dionigi, 2002b; Dionigi, Horton & Baker, 2013a; Grant, 2001), and one study aimed to explore identity (Dionigi, 2002a). Three studies used theoretical frameworks to interpret results; one study

used continuity theory (Roper, Molnar, & Wrisberg, 2003), one study used a combination of preserved differentiation, selective maintenance and compensation theory (Dionigi, Horton, & Baker, 2013a), and one study used the theory of the third age (Dionigi, 2006b).

Findings across these studies produced four major themes: Fear of loss, fighting ageing, resisting and reproducing stereotypes, and athletic identity (see Table 3). Fear of loss refers to older athletes concern that a loss in the ability to be active will lead to a loss of independence, sense of control and sense of self. Across these studies the main concern was that decline in physical ability would lead to dependency which was viewed as an unacceptable and undesirable outcome (Dionigi, 2002a, 2002b; Dionigi, 2006b; Dionigi, Horton, & Baker, 2013a, 2013b; Dionigi & O'Flynn, 2007; Grant, 2001). Participants in some studies also expressed fear in giving up sport as they believed they would become 'old quickly' and have nothing else to do (Dionigi, 2002b; Grant, 2001).

INSERT Table 3

While discontinuing a sporting lifestyle was associated with loss, studies showed that participants believed that maintaining a role as a competitive sportsperson could prevent, delay, or beat ageing. Talk reflected the desire to fight ageing and the ageing body through sport because of the belief that it could help participants 'live longer', 'slow ageing', 'avoid old age', 'negate ailments', and 'keep you young' (Dionigi, 2002a, 2002b; Dionigi, 2006b; Dionigi, Horton, & Baker, 2013a, 2013b; Dionigi & O'Flynn, 2007; Grant, 2001). In addition, studies reported that participants saw themselves as resisting negative stereotypes of ageing (Dionigi, 2002a, 2002b; Dionigi, 2006b; Grant, 2001; Roper, Molnar, & Wrisberg, 2003) with some feeling motivated to compete as a demonstration of their resistance (Dionigi, 2002b). Further to this, some studies found that rather than redefining 'ageing' in positive terms some older athletes reproduced negative stereotypes and were proud to differentiate themselves from other older adults (Dionigi, 2002a, 2002b; Dionigi, 2006b;

Roper, Molnar, & Wrisberg, 2003). The participant in Roper, Molnar, and Wrisberg's (2003) case study preferred to distance himself from older adults and associate with younger athletes believing that standards should prevent 'any old person' from competing, however as this represents the opinion of one participant it cannot be generalised across all studies.

Most studies found that a sense of self was inherently related to competitive sport (Dionigi, 2002a, 2002b; Dionigi, 2006b; Dionigi, Horton, & Baker, 2013a, 2013b; Dionigi & O'Flynn, 2007). Not only did participants confirm their identity as an athlete, but many also saw themselves as competitors, suggesting that identity was related not simply to engagement in sport but to performance as well. One exception to this finding was the case study (Roper, Molnar, & Wrisberg, 2003) where the participant explicitly reported that he did not identify as an athlete but rather as an 'exerciser' because he felt his body did not reflect his image of what an athlete should look like physically.

Findings in this group suggest that older competitive sportspeople identify as competitive athletes rather than 'old aged'. Their desire to continue to compete appeared to be associated with their desire to avoid the perceived negative effects of ageing. By self-identifying as competitive athletes, participants were simultaneously dissociating with non-competitive or nonactive people whom they saw as representative of the negative stereotypes that they wished to avoid (Dionigi, 2002a, 2002b; Dionigi, 2006b).

Issues of reliability and validity arose in several studies; two studies within this group did not provide transparency of their data analysis (Dionigi & O'Flynn, 2007; Grant, 2001), which made it difficult to assess the rigour of their methods. Another noted issue, particularly with single author papers, was the absence of cross-checking which is commonly used to improve a study's reliability (Dionigi, 2002a, 2002b; Dionigi, 2006b; Dionigi, Horton, & Baker, 2013b; Dionigi & O'Flynn, 2007; Grant, 2001). It must also be acknowledged that the consideration of reflexivity was absent from five of these studies, as

with the exercise group this means that the degree of researcher influence cannot be identified. Also, whilst there was consensus in relation to defining a competitive sportsperson, this definition was extremely broad and did not explicitly identify any criteria for levels of physical fitness; therefore it is possible that some participants in this group may have engaged in less physical activity than those in the exercise group. Finally, findings should also be considered in light of potential data overlap. Six of the eight studies were presented by the same first author, with four of these studies explicitly stating that they were part of a larger research project. While it was not made clear whether the data sets were identical, Table 4 compares sample characteristics from these studies and reveals large similarities.

INSERT Table 4

In synthesising the data from both groups three overarching concepts were formed to explain the relationship between themes, these were: approaches to ageing, negotiating ageing stereotypes, and self-identity (see Figure 2). Results suggest that there may be differences in the way these two populations approach ageing. Discourses within the exercise group were related to aspects of successful ageing, these discourses centred on attitude and activity, and while exercise was one of many activities that formed participants definitions of successful ageing it was not a priority for most moderately active older people. This differed from older competitive sportspeople who associated ageing with loss; they saw ageing as a negative life transition and were therefore focused on staying active in sport as a strategy to avoid or delay ageing.

INSERT *Figure 2*

A similarity between groups was found in the resistance of existing ageing stereotypes. Participants in both the exercise group and the competitive sport group did not see themselves as 'old' or someone who fitted the definition of an older person. In addition,

the reproduction of ageist stereotypes appeared to be a part of the process of differentiating self from other. Results from Dionigi, Horton, and Bellamy (2011) suggest that the reproduction of ageist stereotypes may be more prominent in more highly active participants.

Results also indicate that there may be similarities in the construction of self-identity. Both the exercise group and competitive sport group found that participants viewed sport or exercise as an important part of who they were. Though inconsistencies were found in both groups, studies containing contrary findings (Roper, Molnar, & Wrisberg, 2003; Whaley & Ebbeck, 2002) had significant limitations. The overall strength of this finding, however, is questionable, with results much more conclusive in the competitive sport group than in the exercise group; within the exercise group only three of the five studies addressed self-identity, two studies supporting this finding with a total sample size of 43 participants.

Discussion

This systematic review aims to provide a summary and critique of qualitative literature that explores the perceptions and experiences of older adults who exercise and older adults who compete in sport. Thirteen qualitative studies met the inclusion criteria. In order to determine whether differences existed between cohorts, the studies were grouped according to sample characteristics; older adults engaging in exercise (five studies) were grouped separate to older adults who participated in competitive sport (eight studies). Notably, whilst there was consensus on a definition of competitive sport, all studies in the exercise group defined the construct of exercise differently; participants in this group may have therefore varied greatly in their physical fitness levels and commitment to exercise.

The pattern of results suggests that older adults who exercise approach ageing differently to older adults who compete in sport. The exercise group focused on a broad range of definitions of successful ageing, suggesting that this group sees ageing as something that can be experienced positively through both action and attitude. In contrast, the

competitive sport group focused on losses associated with ageing and appeared to be competing in sport as a way to avoid or delay the ageing process itself. Similar findings in a younger athletic cohort suggest that this negative approach to ageing may be mediated by identity (Phoenix, Faulkner, & Sparkes, 2005) with a more exclusive athletic identity associated with less positive attitudes towards ageing. However, as both groups in this review constructed an identity around their active lifestyle this does not explain why the exercise group adopted a more positive approach to ageing. This highlights the need for further exploration into the relationship between approaches to ageing and identity construction.

Results also support the existence of similarities between the two cohorts in relation to the construction of self-identity. Older adults who are physically active or compete in sport tend to view their role as exerciser or athlete as integral to their sense of self; of particular interest in the competitive sport cohort is the equal importance of 'athlete' and 'competitor' in identity construction. This finding may have important implications in relation to how older exercisers and athletes cope with physical decline. In a systematic review of transition to retirement in athletes aged 15 to 84, Parke, Lavalley and Todd (2012) found that a strong athletic identity was associated with a negative transition to retirement with athletes experiencing a loss of identity. As Dionigi, Horton, and Baker (2013b) suggest, an identity constructed on physical capability, may be maladaptive when faced with inevitable physical decline. It is however important to note that the strength of this finding is questionable, as not all studies addressed the concept of self-identity and in those that did one exercise study found conflicting results which suggest that some physically active older adults search for broader descriptions of self (Whaley & Ebbeck, 2002).

Resistance to dominant negative stereotypes also appears to be consistent across groups. Paradoxically, in resisting negative stereotypes there is also a tendency to reproduce

these same stereotypes as part of the differentiation process. That is, older adults who engage in exercise or compete in sport tend to differentiate themselves from other old people by referring to less active older adults using negative ageing discourses. This reproduction of stereotypes is supported by Roters et al. (2010) who found in a comparison between young athletic students and nonathletic students, that involvement in sport does not prevent a person from developing stereotypical perspectives on ageing. Breaking down stereotypes even in an environment where individuals may challenge those stereotypes is a difficult and complex process; the use of differentiation by labelling others according to stereotypical discourses has the potential to perpetuate ageism and isolate those who cannot or will not maintain engagement in a physically active lifestyle (Dionigi, Horton, & Baker, 2013b; Dionigi, Horton, & Bellamy, 2011; Dionigi & O'Flynn, 2007).

Interestingly, one exercise study grouped participants according to activity levels (Dionigi, Horton, & Bellamy, 2011). This study found differences in approaches to ageing across varying exercise levels with the highly active group more closely resembling results in the competitive sport studies. This provides further support for the differences found in this review and highlights the diversity of experience found within and between groups of active older adults. Further, it acts as a reminder that ageing is a complex phenomenon that cannot be captured through a single lens. To this end, it also provides direction for future studies by suggesting that grouping participants according to varying levels of physical activity, or training intensities of specific sports, may uncover subtle yet important differences within these populations.

Three studies in this review reported results that conflict with the overall findings. Contrary to findings that older competitive sportspeople identify as athletes, Roper et al. (2003) found that the participant in their case study did not. As with all case studies a single participant's experience cannot be generalised to the population whereas consensus in larger

samples provides greater confidence that results do in fact reflect that of the population.

Whaley and Ebbeck (2002) also found participants were reluctant to describe themselves as 'exerciser'. The rigour of this finding is difficult to establish as there were methodological issues in the study's design, namely a lack of supporting evidence for the study's results.

Furthermore, it should be noted that identification with a single descriptor such as 'athlete' or 'exerciser' does not exclusively determine one's identity; therefore those participants who did not identify with these descriptors may still value athleticism and exercise within their broader self-identity.

A further contradictory finding was that participants in Stathi, Fox, and McKenna's (2002) study were less inclined to resist ageing stereotypes. As the minimum requirement for participants in their study was to engage in organised regular physical activity at least once a week, their results may be due to their sample engaging in less exercise than in other studies. Similarly, Dionigi, Horton and Bellamy (2011) found that the least active group in their study tended to think of themselves as old and thereby accept ageing stereotypes.

Methodological limitations also exist within the study designs weakening the confidence ascribed to overall results. Reflexivity is missing in the reporting of eight of the 13 studies making it difficult to determine what effect the researcher may have had on the data. The lack of transparency in analysis or supporting evidence of some studies also raises concerns surrounding the validity of those results (Dionigi & O'Flynn, 2007; Grant, 2001; Stathi, Fox, & McKenna, 2002; Whaley & Ebbeck, 2002). However, the biggest methodological concern is the lack of clear, concise definitions of exercise and competitive sport. The definition of competitive sport centres on participation in masters' games but does not address a minimum level of physical activity; whereas the exercise group offer diverse definitions with no consensus across studies. Whilst the authors acknowledge that defining competitive sport or exercise may not have been a goal in the literature, it means that there is

the potential that some older adults in the exercise studies may be more physically active than those in the competitive sports group. This also means that there is large variation in the level of physical activity amongst participants within the exercise group which may have been perpetuated by self-report. This probably explains why results were less consistent amongst the exercise group. Overall, these methodological limitations weaken the level of confidence afforded to the findings of this review.

To the authors' knowledge, this is the first systematic review comparing qualitative literature on older adults who engage in exercise and older adults who engage in competitive sport. The notion that differences in approaches to ageing may be related to different levels of physical engagement suggests that some actions taken in the pursuit of healthy living may in fact be related to maladaptive attitudes. Results indicate that based on negative attitudes to ageing and physical decline older competitive sportspeople may experience difficulty transitioning from sport into retirement. Further research needs to examine how older competitive sportspeople negotiate a negative view of ageing when faced with the inevitability of age related decline. Fear, reproduction of ageist stereotypes and the avoidance of old age as demonstrated by older adults engaged in competitive sport could potentially be maladaptive when facing retirement from sport and may lead to negative impacts such as social withdrawal and depression. It is therefore imperative that the psychosocial impacts of different physically active lifestyles be investigated further so that policy makers can consider these impacts when promoting physical activity as an integral aspect of ageing well.

At this stage more research is needed. However, future research should consider applying more rigid definitions to competitive sport and exercise so that a clear differentiation can be established between level and intensity of engagement in sport and exercise in relation to psychosocial impacts. The inclusion of quantitative literature in future

literature reviews should also be considered; expanding the scope of research to include constructs such as quality of life and life satisfaction will provide even greater knowledge and understanding of how discourses of ageing and self-identity interact with physical activity. Furthermore, employing longitudinal study designs might allow researchers to examine attitudinal changes and transitional experiences as older sportspeople face retirement and deep old age.

There are several limitations to this review. Firstly, as is common with qualitative research the stated aims of the studies were broad with few specifically investigating ageing discourses and self-identity. Whilst all studies addressed ageing discourses in their results fewer studies addressed self-identity; this led to uncertainty of results surrounding this construct. Secondly, out of the 13 studies reviewed, eight were grouped as competitive sport, nearly double the number of studies in the exercise group, and as discussed above consideration for overlapping data in the competitive sport group may have led to stronger consensus in results. Thirdly, caution should always be taken in reviewing qualitative studies as the intention with qualitative research is to acknowledge individual experiences rather than to generalise to the population. Finally, the review did not include literature primarily examining functional exercisers, or inactive older adults; though inactive participants did form part of the studies by Diniogi, Horton, and Bellamy (2011) and Leavy and Aberg (2010), examining results from these inactive groups was beyond the scope of this review. In future, the ability to compare results across all levels of physical activity (including inactivity) might lead to more robust findings to assist with future directions in research.

Conclusion

Thirteen studies were reviewed and the consensus of evidence suggests that differences in discourses of ageing exist between older adults who exercise and older adults who engage in competitive sport. Older adults who exercise tend to take a more positive

view of ageing, finding a variety of ways to age successfully, while older adults engaged in competitive sport tend to focus on ways to avoid the losses and physical decline of deep old age. However, the variations in definitions of both exercise and competitive sport make it difficult to identify whether there is a genuine difference related to the type and level of physical activity or whether these findings simply demonstrate the individuality of experience in making sense of the ageing process. By implementing the above recommendations further understanding can be gained in determining whether and how different levels of physical activity affect older adults negotiating the ageing process. This information can then be used to explore the utility of government recommendations for physical activity levels in older adults.

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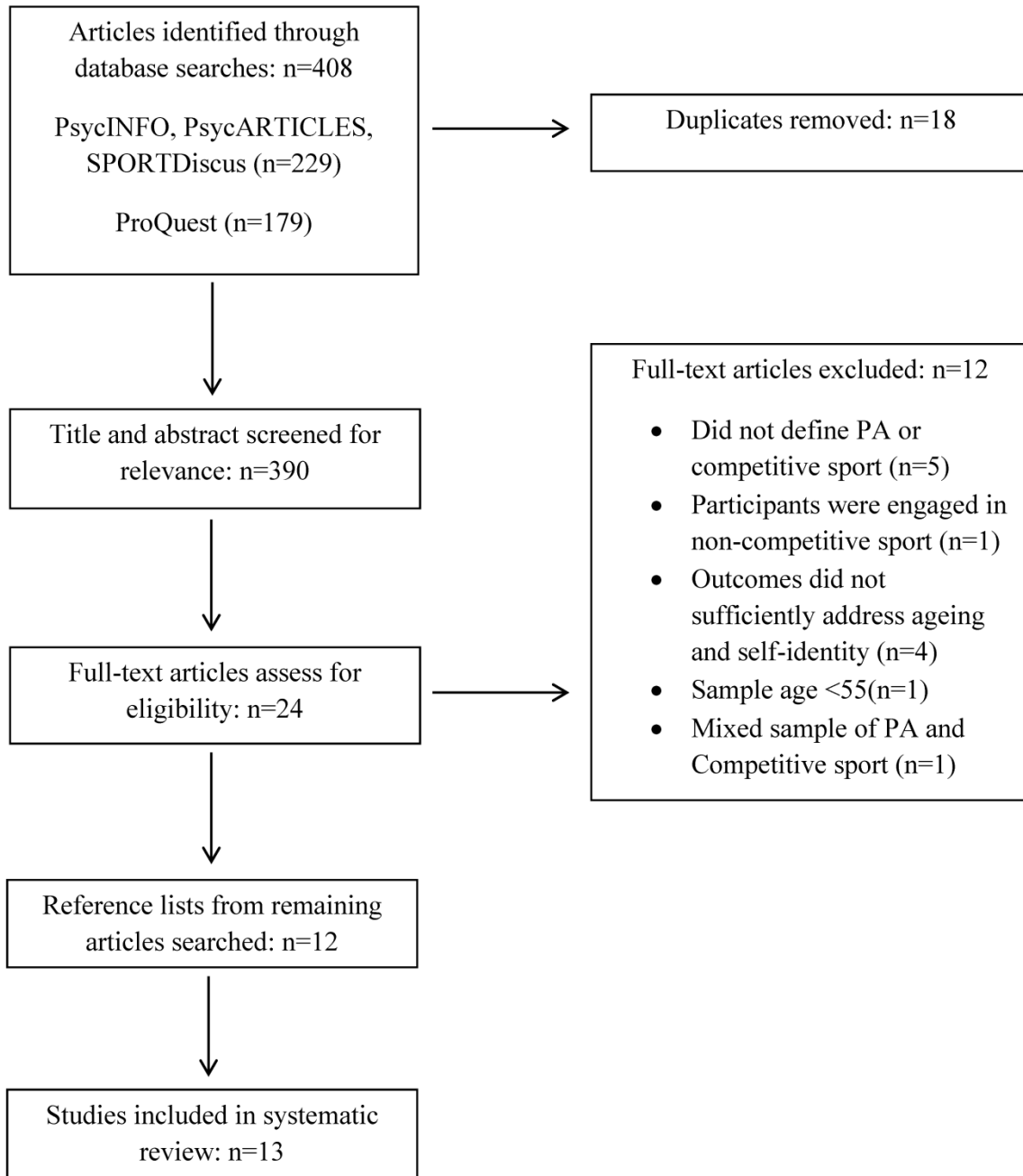


Figure 1. Flowchart of literature search.

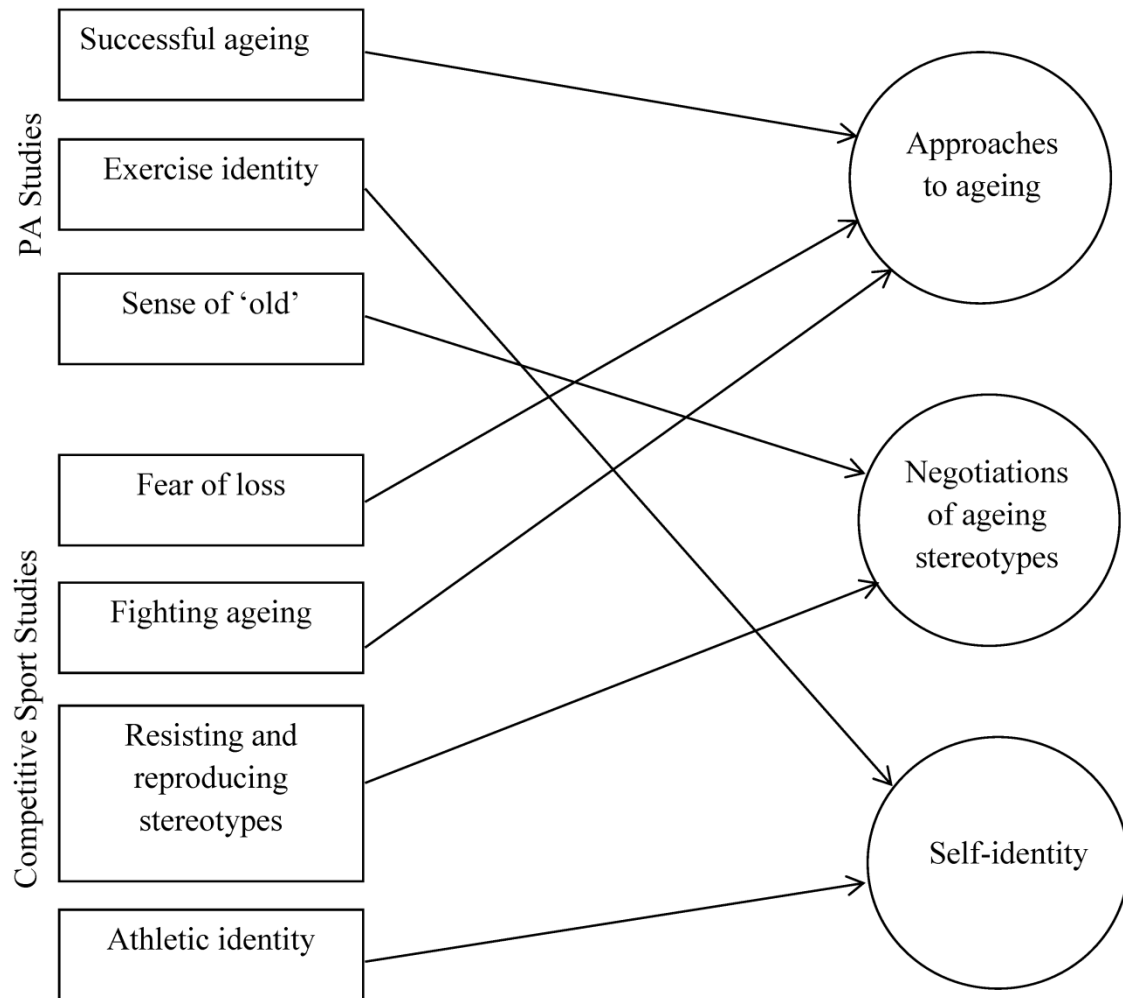


Figure 2. Synthesis of group themes into overarching concepts.

Table 1

Overview of 13 studies in the review

Study	Aims	Method/Context	Sample characteristics	Definition of older adults participated in exercise or competitive sport	Notable limitations/ Quality issues
Dionigi, 2002a	Explore lived experiences of older adults who compete in sport	Semi-structured interviews Observation Field notes. Conducted on site at masters' games event.	110 Australian masters' games athletes (gender not reported). Mean age not reported Age range = 55-94. (7 New Zealanders, 103 Australians)	Participated in individual or team event at masters' games	<ul style="list-style-type: none"> • No reported cross-checking during data analysis • No reported verification of data from participants • Role of researcher unclear
Dionigi, 2002b	Highlight ways in which older adults express resistance and empowerment through competing in sport	semi-structured interviews Observation Journal Conducted on site at masters' games event.	110 Australian masters' games athletes (55 female, 55 male). Mean age not reported Age range = 55-94 (7 New Zealanders, 103 Australians)	Participated in individual or team event at masters' games	<ul style="list-style-type: none"> • No reported cross-checking during data analysis • Ethical considerations not reported
Dionigi, 2006b	Explore participants words within the context of negative and positive stereotypes of	In depth interviews Conducted in participants' homes.	28 Australian masters' games athletes. (15 female, 13 male). Mean age not reported Age range = 60-89	Participated in individual or team event at masters' games.	<ul style="list-style-type: none"> • No triangulation in the collection of data. • No reported cross-checking during data analysis • Ethical considerations

Study	Aims	Method/Context	Sample characteristics	Definition of older adults participated in exercise or competitive sport	Notable limitations/ Quality issues
	ageing		Nationality not reported		not reported
Dionigi, Horton, & Baker, 2013a	Examine how competitively active older people make sense of their capacity to maintain sports performance	Semi-structured interviews Conducted on site at masters' games event.	44 world masters' games athletes. (23 female, 21 male). Mean age = 72 Age range = 56-90 24 Australians, 9 Canadians, 6 Americans [USA], 5 New Zealanders)	Participated in individual or team event at masters' games	<ul style="list-style-type: none"> • No triangulation in the collection of data • Role of researcher unclear • Ethical considerations not reported
Dionigi, Horton, & Baker, 2013b	Examine stories of older world masters' games athletes focusing on how they negotiate the ageing process	Interviews Conducted on site at masters' games event.	44 world masters' games athletes. (23 female, 21 male). Mean age = 72 Age range = 56-90 24 Australians, 9 Canadians, 6 Americans [USA], 5 New Zealanders)	Participated in individual or team event at masters' games	<ul style="list-style-type: none"> • No triangulation in the collection of data • No reported cross-checking during data analysis • Role of researcher unclear
Dionigi, Horton, & Bellamy, 2011	Examine the meanings of old and successful ageing among older Canadian women of varying	In depth interviews Conducted at participants' homes, community seniors' centres, or retirement	21 Canadian women recruited from a seniors' centre or retirement community. (7 HA, 6 MA, 8 IA) Mean age = 72	HA = exercised with moderate to high intensity at least 3 days a week for a minimum 30 mins each time MA = some regular exercise	<ul style="list-style-type: none"> • exercise level determined by self-report • Role of researcher unclear

Study	Aims	Method/Context	Sample characteristics	Definition of older adults participated in exercise or competitive sport	Notable limitations/ Quality issues
	exercise levels	community	Age range = 75-92	but didn't meet HA criteria IA = little or no exercise	
Dionigi, & O'Flynn, 2007	Explore how older athlete's negotiate performance discourses	Semi-structured interviews Field observations Conducted on site at masters' games event.	138 Australian masters' games athletes (70 female, 68 male). Mean age not reported Age range = 55-94 Nationality not reported	Participated in individual or team event at masters' games	<ul style="list-style-type: none"> • Role of researcher unclear • Context unclear • No explicit description of data analysis • No reported cross-checking during data analysis • Ethical considerations not reported
Grant, 2001	Explore the meanings attributed to exercise and physical activity	Interviews Focus group Context not reported.	15 South Pacific masters' games athletes (8 female, 7 male). Mean age not reported Age range = 71-90 Nationality not reported.	Participated in individual or team event at masters' games.	<ul style="list-style-type: none"> • Role of researcher unclear • Context not reported • No explicit description of data analysis • No reported cross-checking during data analysis • No reported verification of data from participants

Study	Aims	Method/Context	Sample characteristics	Definition of older adults participated in exercise or competitive sport	Notable limitations/ Quality issues
Leavy, & Aberg, 2010	Explore and describe the perceptions of exercise and physical activity	Interviews Conducted at participants' homes or group meeting place.	30 older adults living in their own homes, functionally independent and of varying physical activity levels (16 female, 14 male). Mean age = 74 Age range = 65-89 15 Irish 15 Swedish	HA = regularly involved in exercise of a non-functional nature at least 3 times a week MA = engaged in some weekly exercise that was unscheduled and mostly functional IA = no exercise outside of home	<ul style="list-style-type: none"> • exercise level determined by self-report • No triangulation in the collection of data • Role of researcher unclear • Ethical considerations not reported
Roper, Molnar, & Wrisberg, 2003	Explore whether continuity in sport would represent a primary adaptive strategy for coping with the ageing process	Interviews Observation Context not reported.	One 88 year old male masters athlete from the United States of America.	Runner in national and international events	<ul style="list-style-type: none"> • Single participant limits generalizability • Only partially addresses role of researcher • Context not reported • Ethical considerations not reported
Stathi, Fox, & McKenna, 2002	Explore subjective-wellbeing of active older adults	Semi-structured interviews Group interviews Conducted in	28 community dwelling, physically active older adults (15 female, 13 male). Mean age = 71	Participated in organised regular exercise at least once a week	<ul style="list-style-type: none"> • Role of researcher unclear • Context for group interviews unclear • Supporting extracts

Study	Aims	Method/Context	Sample characteristics	Definition of older adults participated in exercise or competitive sport	Notable limitations/ Quality issues
Whaley, & Ebbeck, 2002	Determine the process of identity formation for active older adults	exercise setting or participants' home. Interviews Observation Journal Questionnaires Interviews conducted in private setting Observation conducted in exercise class	Age range = 62-81 Nationality not reported 13 physically active older adults (11 female, 2 male). Mean age = 81 Age range = 66-90 Nationality not reported	Exercise at least 2 days per week with 2 or 3 sets of strength, flexibility and postural exercise for 20 mins at moderate intensity	not referenced • Ethical considerations not reported • Adequacy of analysis questionable – themes not made explicit / limited extracts to support findings • Ethical considerations not reported • Potential for bias from participant observations
Wing, 2008	Examine the function of exercise and physical activity in older adults and investigate the relationship between ageing stereotypes and physical activity	Demographic form Physical Activity Scale for Elderly Semi-structured interviews Conducted in participants' home or other location.	13 Canadian older adults (6 female, 7 male). Mean age = 72 Age range = 65-84	Usually engaged in 30-60 minutes of exercise on most days per week	• exercise level determined by self-report

Note. HA = highly active, MA = moderately active, IA = inactive.

Table 2

Summary of main themes from exercise group studies

Study	Successful Ageing	Exercise Identity	Sense of 'old'
Dionigi, Horton, & Bellamy, 2011	<p>'if you don't use it you lose it'</p> <p>HA – defined successful ageing in terms of health – exercise was an important component.</p> <p>MA – defined successful ageing in terms of 'keeping busy' and being content to do what you like doing.</p>		<p>MA – predominantly negative view of 'old'. Referred to 'other' as old.</p> <p>HA – very negative view of 'old'. Expressed disdain for 'old'.</p> <p>HA – resisted and reproduced positive and negative discourses of ageing.</p> <p>HA – 'old means getting weaker'</p>
Leavy, & Aberg, 2010	Social contact was viewed as important and a motivator for exercising.	<p>exercise was an inherent part of self-identity for more active participants.</p> <p>exercise was a means by which to search for a new identity.</p>	
Stathi, Fox, & McKenna, 2002	Important to be content, keep a young attitude and enjoy life.		<p>Noticed the body was 'running down' and physical abilities were 'getting less'.</p> <p>'Must not give up'</p>
Whaley, & Ebbeck, 2002		<p>'Exerciser' wasn't descriptive of self.</p> <p>'exerciser' was too impersonal or too intense.</p>	<p>'old' means physical limitations.</p> <p>Spoke of someone else being 'old' rather than self.</p>

Study	Successful Ageing	Exercise Identity	Sense of 'old'
Wing, 2008	Avoid negative people. 'help others' 'Make the best of things'.	'I do other things like sewing, crocheting, painting...' Physical activity provides a positive self- image. 'it's been my whole life'.	Don't fit stereotypes of 'old'. We're more physically active, healthier, younger looking and better able to do things. Old people 'sit around' and 'don't do much'

Table 3

Summary of main themes from competitive sport group studies

Study	Fear of loss	Fighting ageing	Resisting & reproducing stereotypes	Athletic identity
Dionigi, 2002a	<p>Did not want to admit that they were older.</p> <p>Feared stopping sport would mean getting 'old'.</p>	<p>Competing in sport 'keeps you feeling young', 'helps you live longer' and 'slows down the rate of deterioration'.</p>	<p>Resisted old age stereotypes.</p> <p>Differentiated self from 'other' older adults.</p>	<p>Sport played a role in identity construction.</p> <p>'on the hockey field... I got my own identity'</p>
Dionigi, 2002b	<p>Concerned if they stopped being active they would become 'very old, very quickly'.</p> <p>Feared becoming immobile, dependent, and 'old'.</p>	<p>Resisting the physiology of the ageing body.</p> <p>Remaining active in sport equated to remaining independent.</p> <p>If you compete in sport 'you don't get old'.</p> <p>Sport keeps you youthful.</p>	<p>Resisted negative ageing discourses.</p> <p>Repeatedly differentiated self from stereotypical older adult.</p> <p>Motivated to compete in sport in order to resist stereotypes.</p>	<p>Participants identified as sportsperson and refused to give up their identity.</p>
Dionigi, 2006b	<p>Feared loss in activity meant loss of independence, health, control over lives and sense of self.</p>	<p>Sport was a strategy for resisting the ageing body.</p> <p>Believed regular physical activity would delay ageing.</p> <p>Expressed desire to fight the</p>	<p>Challenged age-norms.</p> <p>Believed ageist ideas were primarily about disability.</p> <p>Used positive terminology to describe self but negative</p>	<p>Confirmed identity as athlete.</p>

Study	Fear of loss	Fighting ageing	Resisting & reproducing stereotypes	Athletic identity
		ageing body.	terminology to describe other older people such as ‘pain’, ‘worry’, ‘sitting’.	
Dionigi, Horton, & Baker, 2013a	Fear of physical and mental decline, dependency and other ‘losses’ motivated participants to keep competing.	‘I’ll do this until I die’. You aged better through sport participation.		Being an athlete was considered innate. ‘Sport would be my life’
Dionigi, Horton, & Baker, 2013b	Desire to avoid ageing driven by concern of negative possibilities such as decline and dependency. Feared losing control.	Sport was primary means to avoid old age and delay ageing. Ageing could be beaten.		Redefined self as athlete in later life.
Dionigi, & O’Flynn, 2007	Loss of physical activity associated with loss of independence, health, sense of control and sense of self. Dependence viewed as ‘terrible’. If they did not compete they would become ‘old’.	Wanted to fight the ageing body. Sport helped avoid fragility, ill health and disease. The focus of sports performance was on avoiding old age.		‘I’m a competitor, there’s no two ways about that...’
Grant, 2001	‘What if I get injured or become ill with one of those	Competing in sport equated to ‘being in charge of your body’.	Resisted ageing stereotypes. Didn’t consider self as old.	

Study	Fear of loss	Fighting ageing	Resisting & reproducing stereotypes	Athletic identity
Roper, Molnar, & Wrisberg, 2003	<p>“old people” diseases’.</p> <p>‘If I didn’t play sport what else would I do?’</p>	<p>Sport helped negate the impact of physical ailments</p>	<p>Distanced self from stereotypical older adults and older competitors.</p> <p>‘I don’t want to go off where everyone is old and hear them complain...’</p> <p>Not all old people should compete.</p>	<p>Didn’t identify as athlete. Saw self as exerciser.</p>

Table 4

Comparison of sample characteristics from potentially overlapping competitive sport studies

Sample characteristics	Dionigi, 2002a	Dionigi, 2002b	Dionigi, 2006b	Dionigi, Horton & Baker, 2013a	Dionigi, Horton, & Baker, 2013b	Dionigi, & O'Flynn, 2007
Sample size						
28			✓			✓
44				✓	✓	
110	✓	✓				✓
Setting						
2001 Australian Masters' Games	✓	✓	✓			✓
2009 World Masters' Games				✓	✓	
Sports				NR		NR
Swimming	✓	✓		✓	✓	
Athletics/track & field	✓	✓		✓	✓	
Squash	✓	✓		✓	✓	
Orienteering				✓	✓	
Weightlifting				✓	✓	
Tennis	✓	✓		✓	✓	
Badminton	✓	✓		✓	✓	
Cycling	✓	✓		✓	✓	
Long distance running	✓	✓				
Race walking	✓	✓				
Triathlon	✓	✓				
Archery	✓	✓				
Canoeing	✓	✓				
Gymnastics	✓	✓				
Sport aerobics	✓	✓				
Indoor rowing	✓	✓				
Netball	✓	✓				
Baseball	✓	✓				
Ice hockey	✓	✓				
Soccer	✓	✓				
Field hockey	✓	✓				
Softball	✓	✓				
Cricket	✓	✓				
Basketball	✓	✓				
Touch football	✓	✓				

Note: NR = not reported.