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Self-Concept and Sport Participation*

Eleni Zaharopoulos and Ken P. Hodge
University of Otago

Sport advocates suggest that sport participation enhances self-concept. However, research investigating the relation between sport and self-concept has typically been inconsistent in its findings. This cross-sectional study examined differences between adolescent athletes ($n = 63$), and non-athletes ($n = 50$), and gender, in levels of multidimensional self-concept, using the Self-Description Questionnaire III summary-items. It was found (a) that athletes differed significantly from non-athletes in physical ability self-concept but not in global self-concept, and (b) that females did not differ from males in physical ability self-concept. The findings support the multidimensionality of self-concept. They also refute the assumption that sport participation enhances self-concept in general; suggesting instead that sport may affect a *particular* area of self-concept (i.e., physical ability self-concept) rather than other areas or global self-concept.

The aim of this study was to examine a common assumption often made about sport, namely, that sport participation enhances self-concept (e.g., Hillary Commission, 1987). Self-concept may be defined as "the totality of an individual's thoughts and feelings having reference of himself as an object" (Rosenberg, 1979, p. 7). In the educational context the enhancement of self-concept has been valued as a desirable outcome in itself (Purkey, 1970; Shavelson & Bolus, 1982), as an intervening process which may lead to other desirable outcomes such as increased academic performance (Lecky, 1945; Perkins, 1958), or as a major factor influencing processes such as motivation (Rosenberg, 1979) and persistence (Harter, 1978).

The sport psychology research in this area has typically compared athletes (i.e., sports-persons) to non-athletes (i.e., non-sports-persons) in terms of their levels of global self-concept. In general, the findings of these studies have been inconsistent and often contradictory. This lack of consistency in the findings may simply indicate that there is no relationship between sport and self-concept. However, a number of researchers suggest that the problems may lie either in the measurement instruments typically used, or in the theoretical basis of most studies (see Jackson & Marsh, 1986).

The purpose of this study was to examine differences in levels of self-concept between athletes and non-athletes based on a well supported theoretical model. Shavelson, Hubner and Stanton's (1976) multidimensional model was selected in light of its current use in sport psychology research. Their model suggests that self-concept is multidimensional and hierarchically organized and this conceptualization of self-concept has received considerable empirical support in the literature (Marsh & O'Neill, 1984; Marsh, Parker, & Barnes, 1985; Marsh, Richards, & Barnes, 1986).

Self-Concept: A Conceptual Framework

Self-concept is essentially what the individual thinks of her or himself (Shavelson et al., 1976). These perceptions of one's self are formed through the individual's experience with the environment and they are influenced by reinforcements and evaluations by significant others. These perceptions influence the person's behaviour and psychological well-being. According to Shavelson et al. (1976) self-concept is multidimensional, in that people have different perceptions of themselves for different aspects of their lives (e.g., perceptions of their physical appearance, perceptions of their academic abilities), as well as a global self-concept. It is also suggested that self-concept is hierarchically

*Requests for reprints should be sent to Dr. K. P. Hodge, School of Physical Education, University of Otago, Box 56, Dunedin, New Zealand.

organized in terms of generality, in that global perceptions of the self are formed by perceptions of the self in more specific situations. Empirical evidence also indicates that external criteria (e.g., sporting performance) will be more strongly related to those areas of self-concept to which they are more logically/theoretically related, rather than to other areas or global measures of self-concept. For example, a study by Jackson and Marsh (1986), showed that sport participation was more strongly related to self-concept of physical ability, rather than to other facets or global self-concept.

Sport and Self-Concept

Although sport participation has often been discussed as being positively related to self-concept development (e.g., Hillary Commission, 1987), research has failed to demonstrate a clear relation between these two variables. Studies comparing athletes to non-athletes in global self-concept have generally found inconclusive and inconsistent results (e.g., Anshel, Muller, & Owens, 1986; Ibrahim & Morrison, 1976; Ryckman, Robbins, Thorton, & Cantrell, 1982; Schumaker, Small, & Wood, 1986; Young, 1981; Vincent, 1976). For example, Ibrahim and Morrison (1976) found that athletes had *lower* self-concepts than non-athletes, Vincent (1976) discovered that athletes had *higher* self-concepts that non-athletes, and Young (1981) reported *no* differences in global self-concept between athletes and non-athletes. A common characteristic of these three studies is that they all used the same self-concept instrument (Tennessee Self-Concept Scale; Fitts, 1965).

Jackson and Marsh (1986) suggest that this inconsistency in the literature may be due to problems with the measurement instruments used, or the failure of the investigators to consider the multidimensionality of self-concept. Jackson and Marsh (1986) examined the relation between women's involvement in sport and multidimensional self-concepts utilizing the Self-Description Questionnaire III (SDQ III; Marsh & O'Neill, 1984). Their major findings indicated that female athletes scored significantly higher on the self-concept facet of *physical ability* than the non-athletic female group. Although differences were also found in other areas of self-concept, the largest differences were observed in physical ability self-concept. Their findings support the multidimensionality of self-concept in that athletes are more likely to differ from non-athletes in a particular area of self-concept, that is, physical ability self-concept which is more closely related to sport.

In summary, the literature does not demonstrate clearly whether or not sport participation enhances global self-concept. However, current research suggests (e.g., Jackson & Marsh, 1986) that sport participation is more likely to influence the particular area of self-concept that it is strongly related to (e.g., physical ability self-concept), rather than other areas, or global self-concept.

Gender and Self-Concept

In general, psychological research has shown large gender differences in self-concept which are consistent with gender stereotypes. For example, Dusek and Flaherty (1981) in their longitudinal study of adolescent self-concept found that males had higher self-concepts in achievement/leadership and females had higher self-concepts in congeniality/sociability. Research with Australian samples indicates that males, compared to females, tend to have higher self-concepts of their physical abilities and mathematics, whereas females tend to have higher self-concepts in reading (Marsh, Barnes, Cairnes, & Tidman, 1984; Marsh, Parker, & Barnes, 1985). Nevertheless, while gender differences have been found in specific components of self-concept there is little evidence of gender differences in global self-concept (Wylie, 1979).

Purposes and Hypotheses of Study

The purposes of this cross-sectional study were: (a) to determine if athletes differ from non-athletes in levels of global self-concept, (b) to determine if athletes differ from non-athletes in levels of physical ability self-concept and, (c) to determine if self-concept of physical ability varies by gender. The hypotheses of this study were: (a) that athletes would be significantly higher in physical ability self-concept than non-athletes, (b) that athletes would not differ from non-athletes in levels of global self-concept and, (c) that males would have higher physical ability self-concepts than females.

Method

Subjects

A total of 113 students (51 males and 62 females) were randomly selected from two subpopulations (athletes and non-athletes) at a Dunedin public high

school. Subjects were mainly NZ Europeans (85%) and generally came from a middle socioeconomic background (65%). Their ages varied from 13 to 17 years (M = 14.3). Of these students 63 were sport participants (28 males and 35 females) and 50 were non-participants (27 females and 23 males). To qualify as a sport participant (i.e., an athlete) a student had to be currently representing his or her school (and/or club) in interscholastic competition (and/or club competition). The athletes participated in 14 different team and individual sports.

Instrument

Self-Description Questionnaire III-summary items. The SDQ III-summary items (Marsh & O'Neill, 1984) are based on the multidimensional self-concept model proposed by Shavelson (Shavelson et al., 1976). The 12 summary description-items are designed to parallel the multi-item self-concept scales on the SDQ III. Because the students were asked to also supply information about their sporting involvement, for logistical reasons the SDQ III summary-items (12 questions) were chosen over the SDQ III multi-item (136 questions). The summary-items measure 12 areas of self-concept; physical ability, physical appearance, math, verbal, problem solving, general academic, relations with parents, relations with members of the opposite sex, relations with members of the same sex, honesty, religion, and emotional stability. A global self-esteem scale was also used to assess the students' global self-concept.

Subjects responded to items indicating the item's accuracy (i.e., How accurate — true — the statement is as a description of themselves) and the item's importance (i.e., How important the description is in determining how they feel about themselves). The subjects respond on a scale of 1 "very inaccurate/unimportant" to 9 "very accurate/important". Marsh (1986), investigated the reliability and validity of the 12 single-item scales and stated that the single-item summary scales provide an acceptable estimate of the multi-item scales that they are designed to parallel (see also Marsh, Barnes, & Hocevar, 1985, for psychometric data).

The questionnaire was administered at the beginning of the second school term (mid-season, winter sports). Students were also asked to complete a section in the questionnaire assessing (a) general background information (sex, age, ethnic origin, parents' occupations) and, (b) sporting background information (such as what sports they were competing in currently, intensity of involvement, and years of experience).

Results

A preliminary multivariate analysis of variance (MANOVA) was conducted including 13 dependent variables (corresponding to the 13 areas of self-concept) and 2 independent variables (subject type and gender). The results indicated a significant main effect for subject type (athlete vs. non-athlete), Wilk's lambda = .71, $F(13,85) = 2.55, p<.01$. One-way ANOVA's were then conducted for each of the 13 scales. Large group differences were found in physical ability self-concept, $F(1,112) = 14.8$, $p<.001$; with athletes being significantly higher (M = 6.9; SD = 1.4) than non-athletes (M = 5.8; SD = 1.6). The athletes (M = 7.0; SD = 1.6) also considered this area to be more important, $F(1,112) = 9.9$, $p<.01$ than non-athletes (M = 5.9; SD = 2.0). Differences were also found on the problem solving scale $F(1,112) = 5.1, p<.05$, with athletes (M = 6.8; SD = 0.2) higher than non-athletes (M = 6.1; SD = 0.2). These results support the first hypothesis, that athletes would differ significantly from non-athletes in physical ability self-concept. The second hypothesis was also supported, with a one-way ANOVA showing that athletes (M = 7.0; SD = 1.5) did not differ significantly from non-athletes (M = 6.7; SD = 1.5) in levels of global self-concept, $F(1,112) = 1.32$, NS.

The MANOVA also indicated a significant main effect for gender, Wilk's lambda = .74, $F(13,85) = 2.30, p<.05$. One-way ANOVA's on each self-concept scale revealed a significant difference in same-sex relationships self-concept, $F(1,112) = 17.0, p<.001$, with females scoring higher (M = 7.6; SD = 1.3) than males (M = 6.2; SD = 2.1). Females also differed significantly from males in opposite-sex relationships self-concept, $F(1,112) = 12.5$, $p<.001$, with females scoring higher (M = 7.1; SD = 1.2) than males (M = 6.1; SD = 1.1). No other differences were found for gender; therefore, the third hypothesis that males would be significantly higher than females in physical ability self-concept was not supported. Finally, the MANOVA indicated that the interaction between subject type and gender was not significant, Wilk's lambda = .92, $F(13,85) = 0.53$, NS.

Discussion

Generally, the results of this study are consistent with other findings in the self-concept literature which support the multidimensionality of self-concept. Athletes differ from non-athletes in their levels of self-concept. However, the differences are not generalizable across all

areas of self-concept. In effect, the general view of sport as being a mediator in enhancing global self-concept must be reconsidered and examined more closely. The results of this study suggest that at least at the high school level and for participants in interscholastic competition, sport is more closely related to physical ability self-concept than to other facets or global self-concept.

Athletes also rate their physical abilities as being more "important" as a description of themselves than non-athletes. It is a common theme of self-concept theory that the evaluations the person places on his or her characteristics and their effect on his or her global self-concept, depend on how *central* or how *important* these characteristics are to the person (Coopersmith, 1967; Rosenberg, 1979). Therefore, different types of athletic (i.e., sporting) involvement may have a differential effect on self-concept development. In this regard, considering the different types of possible athletic involvement, future research should explicitly define their comparison groups. Although athletes are typically defined as participants in some level of organized formal sport, previous research has been less specific in defining non-athletes. In the present study, due to logistical reasons, non-athletes were defined as students who were not currently participating in formal sport. However, this definition does not account for the possibility that a person may have been highly involved in formal sport in the past, or that they may be presently involved in social/informal sport, or that they may participate in regular physical exercise (e.g., aerobics, swimming). Thus, although athletes in general may be considered a relatively homogeneous group, the non-athletic group can be extremely heterogeneous.

Participants in *social/informal sport* (games that place less emphasis on competition and more emphasis on fun) would appear to have less ego involvement in "physical ability" than participants in formal, organized sport. Because performance in organized sport is formally evaluated (Martens, 1975), it would seem that being good or bad in sport would *matter* more to participants in organized sport than to social sport participants. In effect, success or failure in sporting activities will have a stronger influence on the self-concept of participants in organized sport than the self-concept of those participating in social sport. As a result, comparisons across different studies which use athletes and non-athletes as their comparison groups, are often inappropriate or misleading; the reason being that the groups (especially the non-athletes) are not clearly defined. Future research should determine the degree of involvement in non-competitive physical activities and past experience in formal and/or social sport to clearly differentiate between the athletic and non-athletic (control) groups.

One of the aims of this study was to examine gender differences in physical ability self-concept. Typically, females have been found to be lower than males in this area of self-concept. Such differences were *not* found in this study. Female athletes did not differ from male athletes in physical ability self-concept; similarly female non-participants did not differ from male non-participants. These results are significant since they present a much more positive picture of physical ability self-concepts of females. Although no intuitive or logical reason for these results is evident from the findings, they may be explained by possible cultural differences between this New Zealand sample and the other overseas samples reported in the literature. Consequently, factors that may specifically affect the physical ability self-concept of females within the New Zealand context should be explored.

In summary, this cross-sectional study supports the multidimensionality of self-concept. The results do *not* support the common assumption that sport participation enhances self-concept in general. Rather, it appears that the particular area of self-concept that is more closely related to sport (i.e., physical ability self-concept) is positively related to involvement in sport. However, longitudinal research is needed to investigate any causal relationship between sport and self-concept development. Furthermore, it is suggested that more emphasis should be placed on the definitions of the comparison groups (athletes vs. non-athletes) in order to account for the *importance* that people place on being "good" in physical activities and sport.

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