Exploring the relationship of passion and goal orientation with university athletes'
university experiences

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ABSTRACT

University aged athletes are considered to be in a period of their lives of substantial change and growth. The "emerging adult" stage is presented with newfound independence and challenges suggesting that multiple life events, including sport participation, can have a significant influence on development. Given that a large proportion of students engage in varsity athletics, it is important to understand their impact on development. To test the hypothesis that athletes exhibiting high levels of harmonious passion and task orientation would have an overall better experience in university sport.: A total of 139 male and female university athletes participated in the study. Athletes represented 8 team sports that participated at the varsity and club levels. Independent measures included demographic variables, the Passion Scale, and the Task and Ego Orientation in Sport Questionnaire. The dependent measure consisted of the University Sport Experience Survey (USES) which measures 9 dimensions (5 positive; 4 negative) of athlete development. Of the 5 positive subscales of the USES different variables were associated with each however harmonious passion was associated with all five while task orientation was associated with 3 of the 5 subscales. Each model explained between 17% and 32% of the variance. For the negative experience subscales, ego orientation, eligibility, and harmonious passion were associated with each explaining between 3% and 8% of the variance. Based on the results it can be established that athletes need to become more harmoniously passionate towards their preferred activity and that coaches should create a mastery climate to enhance task orientation.

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LIST OF ABREVIATIONS

PA   Physical Activity

PYD   Positive Youth Development

TEOSQ   Task and Ego Orientation Questionnaire

USES   University Sport Experience Survey

OP   Obsessive Passion

HP   Harmonious Passion

INTRODUCTION

Organized sport is identified as one of the most popular extracurricular activities in children and youth today (Guevremont, Findlay, & Kohen, 2008). Regular sport participation can increase one's physical health, but it's also been shown to demonstrate benefits to psychosocial health and enhance over quality of life (Allender, Cowburn & Foster, 2006). Due to these positive outcomes that stem from youth sport participation, such as decreased stress, increased self-esteem (Crocker, 2016), it's worth considering the developmental outcomes that can affect older age groups, such as those participating in university sport.

Due to the substantial research on youth, other age groups such as the emerging adult, is worth studying. Therefore, when it comes to the reasons these university athletes participate in sport, two concepts that could account for this, and more notably, the positive or negative outcomes stemming from participation, are that of passion and motivation. Passion can be described via a dualistic model including harmonious and obsession passion (Vallerand et al., 2003). Whereas motivation can be best explained using Achievement Goal Theory outlining task and ego orientations (Duda & Nicholls, 1992). Both concepts are thought to be associated with more positive or negative outcomes based on what tendencies an individual is prone to.

University sport experiences can be best measured using a scale developed by Rathwell and Young (2016) that looks at five positive and four negative possible outcomes as a result of sport participation. Based on the limited research on passion in sport and motivation in relation to sport experiences, this study aimed to explore how passion and goal orientations relate to the overall university sport experience.

LITERATURE REVIEW

Individuals participate in sport for a variety of reasons. As Allender, Cowburn and Foster (2006) propose, intrapersonal, social and environmental determinants tend to be a few primary factors influencing physical activity behavior and participation. However, it cannot be assumed children and young adults participate in sport and physical activity (PA) for the same reasons. As found through the qualitative study conducted by Allender et al., (2006), children were found to participate in sport or PA mainly for support from their parents, the safe environment, the encouragement it provides, as well as for experimental reasons, meaning children attempt various sports and activities to see if it could become something they will enjoy doing long term. This differed in comparison to young adults who participated for a sense of achievement, creating social networks, enjoyment and the support from their family and peers. Nonetheless, organized sport is still identified as one of the most popular extracurricular activities in children and youth (Guevremont, Findlay, & Kohen, 2008) and a number of positive outcomes are associated with participation.

As suggest by MacDonald, Côté, Eys and Deakin (2012), due to the amount of time young athletes engage in sport throughout a season, initiative can often develop as long as the environment satisfies basic motivation. Sport participation has been found to be positively associated with life satisfaction while also providing the ideal setting to develop goal setting skills and build character in children and youth (MacDonald, Côté, Eys & Deakin 2012). This is in line with Self-determination theory (SDT) in that sports and PA hope to satisfy the basic psychological needs of autonomy, competence, and relatedness (Deci & Ryan, 2000).

Along with this, the Basic Needs Theory outlines the importance of these three psychological needs, but also the addition of a need-supportive motivational climate. This motivational climate is a hypothetical construct in which internal and external forces allow the formation of initiative, direction and intensity of a certain behavior. Therefore, this role of motivation in youth is important to consider because if they do not stay motivated in a sport or activity early on, dropout rates increase and they will not continue (Trobojevic & Petrovic, 2016). With this, the aspect of Positive Youth Development (PYD) in sport should be considered due to the fact that developing the motivation and proper skills early on in life will allow for more well-rounded and developed athletes down the road as they move onto more competitive sport settings.

Positive Youth Development has been a topic of research in psychology for some time now, and although it was always termed PYD, the aspect of examining positive developmental outcomes that can arise from youth sport participation has continued to be the primary focus. Youth participating in sport regularly have been linked to higher levels of healthy development throughout their life (Reverdito et al., 2017). Enhancements in physical health along with improved interpersonal relationships, motivation, self-efficacy and higher self-esteem are just a few examples of the positive developmental outcomes that can arise from regular sport participation (Reverdito et al., 2017). However, outcomes such as overuse injuries, burnout, aggression and decreased confidence are just a few examples of the negative outcomes that can come participation if a proper motivational climate is not established (Côté & Fraser-Thomas, 2016). Therefore, when considering why children participate in sport it's important to focus on positive outcomes to achieve optimal personal development.

For the purpose of this study, positive youth development can be described through a model proposed by Nicolas Holt (2016), the LDI/BNT life skills development model. The Life Development Intervention focuses on self-directed change as well as goal setting and focusing one's attention on aspects of the future (Hodge, Danish, Forneris & Miles, 2016). Likewise, is aims to increase the chances for success by increasing personal competence by teaching certain life skills. Basic Needs Theory, as mentioned previously, branches off of SDT and proposes the three basic needs of competency, autonomy and relatedness. This theory also adds that a motivational climate is required to be satisfied in order to generate a life skills outcomes (Hodge et al., 2016). Along with this, past research indicates that whether positive youth development emerges through sport participation depends on the arrangement for opportune times to develop personal skills and also the support that is available from family, school and community (Reverdito et al., 2017). With this information on the benefits youth can display as a result of sport participation, little research focuses on the developmental outcomes older youth and particularly, young adults, can also achieve from participating in sport.

Considering the variety of reasons individuals participate in sport, the aspect of developing life skills and building a solid ground to establish attitudes and competencies for adult life is important to acknowledge. Work by Petitpas, Cornelius, Van Raalte and Jones (2005), suggested that positive psychosocial growth is most likely to occur when people are engaged in a desired activity, surrounded by caring adult mentors, and learn or acquire skills important for managing different life situations. Sport participation has also shown to provide individuals with opportunities to be important figures within their social world while also being given the chance to give back to their communities and

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assume leadership roles. These experiences help provide a sense of identity to these young adults, a notable fact that that is particularly relevant to university aged athletes (Petitpas et al., 2005).

University aged athletes have often participated in sport for most of their lives and thus have already developed it as a desired activity. Likewise, the presence of adult coaches and older mentors on the teams allows these young adults to be presented with the proper climate to develop and mature sport-specific skills but also necessary life skills as they move on from university.

Although research on positive youth development in young adults is limited, recent research conducted by Rathwell & Young (2018) has examined current knowledge on PYD with university athletes within the CIS. This qualitative study aimed to explore the positive outcomes that can stem from university sport participation. It was found that these university athletes believe they are the main contributors to their own development, yet also identified coaches and peers as playing a major role as well (Rathwell & Young, 2018). However, to differentiate by what constitutes PYD in young adults compared to youth, researchers noted that within the university sport context, it was this contribution to personal well-being as well as the well-bring of others and the community that demonstrated this positive development. If university athletes are able to become contributing members to their community and acquire life skills that allow them to succeed in different environment, they are thought to have experienced positive development as a result of university sport participation (Rathwell & Young, 2018).

Multiple researchers have asked the similar questions when it came to PYD in university athletes and how their experiences can be measured. In order to do this, the

Youth Experience Survey (YES) was developed to assess the positive and negative experience associated with participation in various structured activities (Hansen, Larson & Dworkin, 2003). The 89-item scale was later shortened by Hansen and Larson (2005) to developed the YES 2.0, which was later examined even further and shortened once again to create the 46-item University Sport Experience Survey (USES). The YES had previously studied younger populations, yet the knowledge regarding the emerging adult (Rathwell & Young, 2016) was rarely considered and there was no tool specifically focusing on positive development in the university sport setting. This 18-25 year age range encompasses the age of young adults and is considered a period in their lives with new opportunities and a sense of newfound independence. This "emerging adult" is often characterized by the shift from adolescence into adulthood, yet not fully being financially stable or independent. Most notably, it's often when these individuals leave high school and move on to university where they begin to gain more independence, experience new opportunities (Mozzoni & Iannone, 2014) and transition between youth and full adulthood (Rathwell & Young, 2016).

However, during this period of growth, it cannot be assumed that development at this life stage is considered to be all positive. As Jeffrey Arnett (2007), describes, it currently takes much longer to reach full adulthood today than it did in the past and this is often brought along with negative interpretations. As these young adults attempt to find their place in society it can be accompanied by a lot of difficulty. That being said, research has found that well-being and self-esteem actually tend to rise during this transitional period of life. Emerging adults begin to enjoy this newfound freedom and take pride in their progress towards becoming more self-sufficient (Arnett, 2007).

Consequently, the influence of university sport programs on development is of particular interest during the emerging adult years, and as Rathwell & Young (2016) describe, these organized programs are a competitive context in which athletes can experience positive development. Particularly, the subscales in the University Sport Experience Survey measure important life skills that are quite relevant to these young adult athletes. This highlights the fact that positive youth development cannot be overlooked when considering the emerging adult because they are still growing and developing individuals.

There are 9 subscales within the USES, 5 positive and 4 negative that aim to measure the positive and negative experiences associated with university sport participation. These include initiative, interpersonal relationships, basic skills, teamwork, social skills, stress, negative peer interactions, and social exclusion. Using these subscales, the USES takes on a more direct approach in assessing the developmental outcomes resulting from participation in university sport programs (Rathwell & Young, 2016).

A notable difference in the participation of university athletes and younger children is the length of time in which they've participated in sport. Children often begin sport as encouraged by their parents and to get involved in new activities (Allender, Cowburn & Foster, 2006). However, young adult athletes have continued playing sport throughout their lives so much so that they have continued into the domain of competitive university sport. This indicates that the athlete experiences great enjoyment from this sport and engages in it regularly. Vallerand et al., (2006) propose that this representation of an activity that a person enjoys and participates in often will be incorporated into their

identity. As a result, the activity becomes highly valued and would thus develop as a passion.

There has been little focus on the aspect of passion in psychology, yet those that have looked it have noted how motivational it can be (Vallerand et al., 2003). Vallerand and colleagues (2003) defined passion as, "a strong inclination towards activities that people like, find important and one in which they invest time and energy" (p.757). Most recently, this concept of passion and how people can live their lives to ensure it is most fulfilling has been termed "positive psychology" and although there are several concepts that have been found to be of use for leading to a better life, passion has been found to be an important overarching factor (Marsh et al., 2013).

Therefore, when it comes to university athletes, this definition supports the idea that they would possess a passion toward their sport as Vallerand et al., (2003) suggest passion is most often present towards an activity. That being said, Vallerand et al., have proposed a dualistic model to describe the different types of passion, harmonious and obsessive. These opposing types of passion can be defined by how they are internalized into one's identity. Harmonious passion (HP) is the result of an autonomous internalization into one's identity and the activity is participated in freely. With HP, the activity possesses a significant influence in one's life, but it is not overpowering and is integrated easily into one's daily life. In contrast, obsessive passion (OP) is defined as a controlled internalization of the sport into one's identity that tends to stem from intrapersonal or interpersonal pressures tied to the activity. Such pressure includes social acceptance or self-esteem and due to these external contingencies, the individual feels compelled to engage in the activity and it can often overwhelm other aspects of their life.

This can lead to the activity taking up a disproportional amount of space in one's life and can result in negative experiences (Vallerand et al., 2003).

To further look at the element of passion, Robert Vallerand et al., (2003) developed the Passion Scale. Originally composed of 13-items and the two subscales of obsessive and harmonious passion, the scale was aimed to evaluate the dualistic model of passion in a variety of activities. The scale was later examined and further validated by Vallerand et al., (2013) where a few scale items were added, as well as "passion criteria" (items relating to the definition of passion) causing the item count to rise to 17.

Vallerand et al., (2003) also proposed that individuals with obsessive passion towards an activity may not experience a positive affect when performing the activity as they may have difficulty focusing on the task opposed due to the ego-invested structures at play. In opposition, the autonomous internalization experienced with harmonious passion would cause an individual to participate in a flexible manner and they would thus experience task engagement. A method to measure this difference in task engagement and the different motivators associated with each passion subscale would be through looking at achievement goal orientation.

This method of measuring motivation throughout a sport context is Achievement Goal Theory. Outlining the dimensions of why individuals strive to achieve is a question often researched in sport. Two distinctive perspectives of achievement goal theory, as proposed by Joan Duda and John Nicholls (1992), are task orientation and ego orientation. The former implies an individual engages in sport to achieve task mastery and personal improvement to reflect subjective success. Conversely, ego orientation involves desire to achieve based on comparison to others, social recognition and to

display superiority. These two contrasting dimensions of goal orientation are often valid predictors of intrinsic motivation within sport. High levels of task orientation are equal to greater intrinsic motivation, whereas high ego orientation is linked to much lower levels (Fuzhong et al., 1998). Prichard and Deutsch (2015) also define these goal orientations to be performance based or mastery based. Performance-based goals are thought to be ego-oriented in the fact they are based upon ability and sense of self-worth is maintained from out-performing others and their ability to achieve the normative standard of success. Conversely, mastery-goals are more task-oriented in that within this mindset, skill development, improved competence and achieving success based on self-defined goals are the main drivers for participation (Prichard and Deutsch, 2015).

These dimensions of goal orientation can be linked back to self-determination theory to look at the motivational processes at play when it comes to the motivational climate for the athlete. As Cuberos et al., (2018) suggest, achievement goal theory places stress on the individual's perception of their own skills. This perception of personal skill will often affect how future goals are set and the motivational climate created. Therefore, an individual with goals geared toward skill mastery will create a task climate, whereas individuals viewing their skills as talent will often set goals about recognition and performance, thus creating an ego (Cuberos et al., 2018) or performance (Priachard & Deutsch, 2015) climate. It was also found by White and Duda (1994) that ego orientation would be most prominent in intercollegiate athletes. Due to the high levels of competition and skilled athletes constantly being recognized for their achievement, the ego-environment is much more prominent in the university setting than throughout youth (1994).

Purpose and Rationale:

As suggested by Vallerand et al., (2006), those who experience more harmonious passion have an autonomous internalization of the activity into their identity and thus, tend to experience task engagement more fully. Due to this information, one can hypothesis that individuals with high levels of harmonious passion will experience higher levels of task orientation, therefore having a better university sport experience. In opposition, individuals with high levels of obsessive passion and ego orientation are hypothesized to have a slightly less positive university sport experience.

METHODS

<u>Participants</u>

A total of 146 surveys were administered for this study. Upon completion of data collection, surveys without written consent, or those with substantial missing data were excluded, leaving the final sample count at 139 athletes (46 male; 93 female). Ages of the athletes were 18-25 years (M= 20.2; SD = 1.67) and played on a competitive sports team at the University of Prince Edward Island at both varsity and club levels. The sports teams included both Men's (n=20) and Women's (n=19) soccer, basketball (men=11) (women= 15), hockey (men=15) (women=17), as well as Women's field hockey (n= 13) and rugby (n= 29).

<u>Materials</u>

A letter of information and consent form (see Appendix B) were given to each participant outlining the purpose of the study. Once completed, each participant was asked to provide demographic information which included the following variable: age, sex, sport, year of eligibility, and whether or not they are a starter. A starter for field hockey, soccer, rugby and basketball will remain constant as the starting lineup for the majority of competitive league games. For basketball, that will be the top 5-7 players depending on the game, and for field hockey, soccer and rugby, that will be the first 11 and 15 players beginning the game. As for hockey, starters will be defined as the 5-10 players beginning the majority of competition, yet this will also depend on the game.

The Passion Scale (Appendix E) developed by Vallerand et al., (2003) is composed of 17 items measures harmonious and obsessive passion. Six questions aim to

measure harmonious passion, and included items such as "This activity reflects qualities I like about myself" while six questions aim to measure obsessive passion and are evidenced by questions such as "I have difficulties controlling my urge to do my activity." The last five questions on the scale are categorized as passion criteria; aimed to fit with the definition of passion in terms of time investment, activity liking, valuing the activity and perceiving the activity as a passion. These last questions are thought to relate to both subscales of passion in that they fit within an overarching concept of what passion is (Marsh et al., 2013). To measure this passion criteria, the scale included questions such as "I love this activity" and "This activity is part of who I am." Questions are scored on Likert-type scale with value ranging from 1 (strongly disagree) to 7 (strong agree).

The Task and Ego Orientations Questionnaire (TEOSQ; Duda & Nicholls, 1992), is composed of 13 items which explore the dimensions of task orientation and ego orientations (See Appendix XX). This questionnaire uses a 5-point Likert scale; (1= strongly disagree, 5=strongly agree and 3=neutral). A total of 6 questions aim to measure ego orientation and 7 questions measure task orientation. Questions measuring task orientation include "I learn a new skill by trying hard" and "Something I learn makes me want to go and practice more" whereas questions measuring ego orientation include "Others mess up and I don't" and "I score the most point/goals."

The University Sport Experience Survey (USES) emerged from the original Youth Experience Survey (YES 1.0) by Hansen and Larson (2002) and consists of 46 items. The instrument assesses 9 subscales (5 positive; 4 negative). Positive subscales include initiative, basic skills, interpersonal relationships, teamwork and social skills, adult networks and social capital. The 4 negative subscales include stress, negative peer

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interactions, social exclusion and inappropriate adult behavior (Rathwell & Young, 2016). These subscales are aimed to assess the positive and negative experiences associated with sport participation at the university level. Questions addressing positive outcomes include examples such as "I am better at setting goals for myself" (initiative), "I discuss morals and values more often with others" (interpersonal relationships) and "I am better at giving feedback" (teamwork and social skills). Questions addressing the negative outcomes resulting from university sport participation may include "I often consume alcohol" (negative peer interactions) or "I am frequently exposed to social cliques" (social exclusion).

<div align="center">Procedure</div>

Participants were recruited through brief meetings with team coaches or by email at the University of Prince Edward Island. Once teams agreed to participate, data collection occurred at the preferred location of the coach and their team and all data was collected preceding or following a practice session. These locations included the UPEI turf field, the UPEI track, the Bell Aliant Centre as well as the Chi Young Sports center in the gymnasium and locker rooms. Participants were asked to read the letter of information provided and give informed consent. Participants then filled out the demographic form as well as the three questionnaires provided, including the Passion Scale, TEOSQ and USES. The three questionnaires took approximately 5 minutes each, and the demographic form took no longer than 1 minute, therefore the total time for completion was an estimated 15-20 minutes.

Data Analysis

To analyze the data, appropriate statistical analysis was applied to the data. A regression analysis was applied to measure the relationship between the dependent variables and multiple independent variables (Tabachnick & Fidell, 2007). For the purposes of this study, the two dimensions from the Passion Scale, Harmonious and Obsessive Passion and the two perspectives from the TEOSQ, task and ego orientation, were used as independent variables along with demographic information including sex, status and year of eligibility. Before regression analysis was run, descriptive frequencies were applied to each measurement tool to collect total means and standard deviations of each subscale. During the regression analysis, the IVs were compared to the dependent variables, the 9 subscales from the USES. Each subscale from this survey was analyzed individually using a stepwise multiple regression analysis on the electronic software, Version 23 of the Statistical Package for the Social Sciences (SPSS). This regression was ran nine separate times to create nine separate models. Following completion of the regression, a reliability analysis was run on each subscale from the Passion Scale, TEOSQ, and the USES. Cronbach alpha scores were generated for each subscale and are displayed in Table 1.

Descriptive Statistics

The mean values of the two subscales from the Task and Ego Orientation

Questionnaire (TEOSQ), the two subscales from the Passion Scale and the 9 constructs

from the USES are represented in Table 1 for the total mean and means among

sexes. Table 1: Descriptive statistics from the total population including means from the

Passion Scale, TEOSQ, and USES subscales for the total population and sexes.

	Mean (SD)	Mean between Sexes (SD)		Cronbach Alpha
		Male	Female	
Ego Orientation	2.44 (.87)	2.75 (.89)	2.29 (.82)	0.83
Task Orientation	4.11 (.65)	4.09 (.54)	4.12 (.69)	0.86
Obsessive Passion	3.47 (1.43)	4.06 (1.23)	3.18 (1.42)	0.85
Harmonious Passion	5.44 (.97)	5.68 (.92)	5.33 (.97)	0.85
Initiative	5.50 (.99)	5.51 (.94)	5.49 (1.01)	0.91
Basic Skills	3.91 (1.40)	4.41 (1.44)	3.67 (1.32)	0.79
Interrelationships	5.13 (1.12)	5.39 (1.23)	5.00 (1.04)	0.79
Teamwork and social skills	5.69 (.86)	5.71 (.83)	5.69 (1.04)	0.88
Adult networks and social capital	4.97 (1.43)	5.14 (1.41)	4.90 (1.44)	0.85
Stress	4.50 (1.44)	4.19 (1.40)	4.65 (1.43)	0.81
Negative Peer Interactions	2.68 (1.26)	2.96 (1.43)	2.55 (1.15)	0.57
Social exclusion	2.50 (1.32)	2.40 (1.53)	2.55 (1.22)	0.81
Inappropriate Adult behaviour	2.46 (1.57)	2.40 (1.73)	2.51 (1.50)	0.93

The table above outlines the subscales from the TEOSQ with the two subscales of the Passion Scale and 9 from the USES to follow. The mean values from the TEOSQ range from 2.29 to 4.12 based on the seven point Likert scale. Also using Likert scales, mean values from the Passion Scale, range from 3.18 to 5.68 and mean values from the five positive subscales of the USES range from 3.67 to 5.71, these include initiative, basic skills, interrelationships, team work and social skills and adult networks and social capital. Mean values from the 4 negative USES subscales, stress, social exclusion, negative peer interactions and social exclusion, range from 2.40 to 4.65.

Stepwise Multiple Regressions:

The relationship between passion, achievement goal orientation and the university sport experiences was measured using a stepwise multiple regression analysis. The independent variables included obsessive and harmonious passion, task and ego orientation along with the sex, year of eligibility and status (starter/non-starter) of the athletes. The 9 subscales of the USES were used as the dependent variables. Results from the regression analysis are displayed in table 2 below.

Table 2: Stepwise Multiple Regressions Analyses predicting the USES subscales

USES Subscales	Significant Predictors	R^2	B	MS
Initiative	Harmonious Passion	.244	.355	.747
	Task Orientation	.300	.399	.696
	Status	.323	-.300	.679
Basic Skills	Obsessive Passion	.168	.255	1.616
	Harmonious Passion	.212	.361	1.543
Interrelationships	Harmonious Passion	.174	.481	1.066
Teamwork and Social Skills	Task Orientation	.186	.389	.622
	Harmonious Passion	.254	.197	.574
	Status	.289	-.335	.551
	Ego Orientation	.314	.162	.536
Adults Networks and social capital	Harmonious Passion	.196	.513	1.658
	Task Orientation	.232	.459	1.595
Negative Peer interactions	Ego Orientation	.055	.335	1.529
Social Exclusion	Ego Orientation	.036	.282	1.688
Inappropriate Adult Behaviour	Eligibility	.046	.258	2.425
	Harmonious Passion	.080	-.302	2.382

<u>Positive Experiences</u>

Five subscales of the USES are considered to be positive and include Initiative,
Basic Skills, Interrelationships, Teamwork and Social skills, and Adult Networks and
Social Capital. All five subscales were found to have significant predictors.

Initiative was found to have three significant predictors as determined from the regressions. Harmonious passion accounted for 24.4% of the variance, task orientation predicted 30.0% of the variance and status was the strongest predictor accounting for 32.3% of the variance. Both task orientation and harmonious passion were positively related to initiative whereas status was negatively associated with a beta value of -.300.

Basic Skills was found to have two significant predictors, those being both harmonious and obsessive passion. Harmonious passion accounted for 21.2% of the variance whereas obsessive passion accounted for 16.8% of the variance. Both predictors were positively related to the construct of Basic Skills based on their corresponding "B" values.

Harmonious passion was the sole predictor of the interrelationships construct and accounted for 17.4% of the variance. Harmonious passion demonstrated a positive relationship with interrelationships.

Teamwork and Social Skills was found to have three significant predictors. Task orientation was the strongest predictor and explained 18.6% of the variance, followed by harmonious passion, which predicted 25.4% of the variance and then status which accounted for 28.9% of the variance. Both task orientation and harmonious passion were positively associated with Teamwork and Social Skills whereas status was negatively associated and had a beta value of -.335.

Task orientation and Harmonious passion were the two significant predictors for Adult Networks and Social Capital. Task orientation accounted for 23.2% of the variance and harmonious passion accounted for 19% of the variance.

<center>Negative Experiences</center>

Four subscales from the USES are considered to be negative and include Negative Peer Interactions, Stress, Social Exclusion and Inappropriate Adult Behavior. Three out of the four negative subscales were found to have significant predictors, with the exception of stress which was found to have no significant predictors, therefore no model was created for that subscale.

Following the regressions, only one predictor was found for both Negative Peer Interactions and Social Exclusion. Ego Orientation was the sole significant predictor for both negative constructs. For Negative Peer Interactions, ego orientation accounted for 5.5% of the variance and for social exclusion, it accounted for 3.6% of the variance. Ego orientation was found to have a positive relationship with both constructs.

Lastly, Inappropriate Adult Behavior was found to have two significant predictors. Harmonious passion had the highest accountability at 8.0% and Year of Eligibility predicted 4.6% of the variance and was the strongest predictor of the two. Year of Eligibility had a positive relationship with the construct of Inappropriate Adult Behavior, yet Harmonious passion had a negative relationship with a beta value of -.302.

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DISCUSSION

Adults are thought to engage in PA and sports for a sense of achievement, to develop their skills and overall enjoyment (Allender, Cowburn & Foster, 2017). However, little research has been done examining the positive and negative experiences young adults can have as a result of sport participation and what factors affect these experiences. Therefore, the purpose of this study aimed to measure the relationship between the two types of passion and two types of goal orientations in relation to the developmental experiences athletes have at university. It was hypothesized that higher levels of harmonious passion and task orientation would lead to an increase in positive experiences and higher amounts of ego orientation and obsessive passion would relate to more negative experiences.

As displayed in the results from the regression analysis in table 2, harmonious passion was determined to be a significant predictor of five of the five positive subscales from the USES. Harmonious passion was also positively correlated with each as shown by the positive "B" values in the table. This positive correlation indicates that the more harmoniously passionate an individual, the more likely they are to have positive experiences.

Task orientation was also determined to be a significant predictor of three of the five positive subscales, including initiative, teamwork and social skills and adult network and social capital. Task orientation was positively associated with each as viewed with their corresponding "B" values. This result suggests that task oriented individuals are more likely to take initiative, interact better with their peers and teammates as well as those with adults and in professional relationships.

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Looking at the negative subscales from the USES, it should be noted that although Stress was determined to have a higher mean as observed in table 1 in comparison to the other negative subscales, it did not have any significant predictors in the regression analysis. Previous research using the USES also found that stress was particularly high in university aged athletes, specifically among females (Arsenault & MacDonald, 2017). With this knowledge, it comes to no surprise that stress was also determined to have a high mean (Table 1) in both male and female populations within this study as research conducted by Wilson and Pritchard (2005) determined that stressors among student athletes tend to be greater than in comparison to the general student population. It is thought that is can be due to the transitional period from high school into college and the pressure to maintain good academics while also competing in athletics. That being said, the remaining three negative subscales from the USES all had significant predictors, and ego orientation was found to be the sole predictor of negative peer interactions and social exclusion.

Ego orientation was positively associated with these two negative subscales indicating that the more ego oriented an individual was, the more likely they were to have negative experiences within the university sport context. This supports the fact that having higher levels of ego orientation can lead to an increase in negative experiences. It should also be noted that harmonious passion was negatively associated with Inappropriate Adult Behavior with a "B" of -.302. This strengthens the notion that increased harmonious passion leads to more positive experiences and a decrease in negative experiences.

With this information regarding harmonious passion and the likelihood for it to be associated with more positive experiences, it can be assumed that athletes need to find methods of becoming more harmoniously passionate towards their activity. This is reinforced through an article by Mageau et al., (2009), that explains harmonious passion is unrelated to negative outcomes such as rumination and conflicts within other life domains. Instead, individuals exhibiting harmonious passion tend to display flexible activity engagement. Carpentier, Mageau and Vallerand (2011) support this concept by explaining that obsessively passionate individuals tend to ruminate about their passionate activity while performing other life activities which can often lead to negative emotions and difficulty concentrating on other tasks and projects. The development of passion is described by Mageau et al., (2009), and points out key personal and contextual factors that can enhance harmonious passion.

Identification with the activity is noted as a primary concept influencing passion development. The impact of activity valuation and the ability of it to resonate with an athlete's sense of self allows the person to begin thinking of themselves in terms of the activity. It is also hypothesized that if individuals view an activity as contributing to their identity or possibly having the potential to do so down the road, then they are more likely to engage in the activity and become passionate towards it. Along with this, to enhance the development of harmonious passion opposed to obsessive, individuals should express their desired activities as having a proper "fit" within their lives and one in which is consistent with themselves as a whole instead of having non-self-determined reasons for engaging which would result in a development of obsessive passion (Mageau et al., 2009).

Other notable factors outlined by Mageau at al., (2009) is that of autonomy-support and parental valuation of the activity. Parental involvement has often been viewed as a unidimensional construct as their level of involvement can often effect the athletes' perspective of their activity. Overinvolved parents tend to cause athlete stress and burnout, as opposed to highly involved parents that convey sufficient amounts of autonomy-support. Therefore, when it comes to developing a passion in athletes, parents need to reflect on their own involvement in the activity and whether or not their engagement is hindering or advancing the athlete based on the level of autonomy-support they provide (Mageau et al., 2009).

This aspect of autonomy-support refers to the view that children and youth are separate individuals who have the right to express their feelings and preferences. Adults, both parents and coaches, that practice this autonomy-support style encourages the athletes to make their own choices and participate in decision making, therefore increasing their initiative and allowing them to feel as though they are participating on their own terms (Mageau et al., 2009). This combination of parental involvement to an appropriate degree, as well as one exhibiting autonomy-support will allow the athlete to develop a more harmonious passion towards their sport or activity due to the freedom in which they choose to engage. It is worth noting that this involvement and supportive style should be practiced early on in life to ensure the development of a healthy passion as children age and reach young adulthood.

Based on the results above, it should also be recognized that task orientation was a significant predictor of three out of the five positive subscales from the USES, including initiative, teamwork and social skills as well as adult networks and social capital. This

information provides the knowledge that individuals who are more task orientated are more likely to have positive experiences within these areas. In order to enhance task orientation in athletes, the main focus falls on the coaches. Coaches can strongly influence the sport experience and contribute to the motivational climate of the team by promoting certain goal priorities, their attitudes and values they display as well as how they treat the members of their team (Prichard and Deutsch, 2015).

Prichard and Deutsch (2015) propose a method of encouraging coaches to promote an optimal motivational climate. Labelled T.A.R.G.E.T, this model stands for Task, Authority, Recognition, Grouping, Evaluation and Time and aims to promote a motivational climate in which athletes can work towards task mastery to achieve more positive developmental experiences through sport. The beginning of the model outlines the importance of defining the appropriate tasks and learning activities within the team. If tasks are defined as meaningful and the athletes are able to view them as an important use of their time, they will be more willing to learn in a style that is more mastery oriented. Along with this, the enhancement of mastery-goals can be influences by the authority displayed by the coaches, but also the leadership roles within the team. Including athletes in the decision-making processes when it comes to the tasks at hand will foster methods of learning and the creation of task-oriented goals, opposed to using external rewards that will only create engagement for performance reasons (Prichard & Deutsch, 2015).

This goes hand in hand with the concepts of recognition and grouping in the team. Athletes need to be recognized for their effort privately and praised for improvement and task-mastery opposed to their performance or ability to score goals. This helps enhance the importance of the learning process. The grouping of players can also be considered a

critical component in reflecting a task-oriented climate. Players need to be grouped based on the intent to promote learning and general peer interaction. If individuals are grouped based on skills or abilities, some team members may begin to feel segregated and of less value on the team, thus creating a more performance-orientated climate with extrinsic motivators (Prichard & Deutsch, 2015).

Lastly, how coaches evaluate their players is the most influential factor in facilitating a motivational climate. If evaluation is structured on social comparison, the development of performance goals will arise and a more ego-oriented climate can result. Instead, coaches need to focus on individual evaluations in terms of the personal growth of each player and their personal contributions to the team as a whole. Along with this, the aspect of time, providing sufficient opportunities to learn and practice certain tasks, will also increase the likelihood of mastery-goals within the athletes (Prichard & Deutsch, 2015).

<u>Limitations</u>

There were a number of limitations to this study that could have altered its generalizability. The primary limitation was that it was specific to one university, the University of Prince Edward Island, and included a moderate sample size that excluded certain sports. The current study surveyed solely interdependent teams, those being teams working towards a common goal such as soccer or basketball opposed to independent teams like track and field or swimming. Along with this, there was a disproportionate number of males (n= 46) compared to females (n= 93), and a more equal distribution could present a more reliable result. Lastly, the location was not a controlled environment and many athletes would talk about questions before answering them individually which

could have led to some bias in the results. Aspects such as the interpretation of questions and possible sociocultural factors could have changed the way in which athletes answered the questionnaires.

Future Directions

Based on the results found within this study, there are a few areas in which further research should be conducted. As noted in the descriptive statistics results section (Table 1), it can be noted that males were seen to have an overall higher mean of obsessive passion (4.06) in comparison to their female counterparts (3.18). Although the different is not overly substantial, it would be worth looking into qualitatively to explore any underlying reasons for this difference. Along with this, looking at the relationship between harmonious passion and task orientation could be worth exploring further. Both independent variables were found to relate to more positive experiences within university sport, however it would be interesting to explore whether or not higher levels of harmonious passion related to individuals demonstrating higher levels of task orientation.

Conclusion

This study aimed to explore the relationship between passion and goal orientations and the experiences university athletes have while participating in sport. The main interest within this study was whether or not higher levels of harmonious passion and task orientation would lead to more positive experiences in university athletes. The results indicated that athletes were having more positive experiences compared to negative experiences and harmonious passion and task orientation were determined to be significant predictors of these positive experiences. Similarly, ego orientation was also determined to be a significant predictor of certain negative experiences. Based on these results, it is suggested that athletes should increase their levels of harmonious passion towards their desired activity. This can be done through identification with the activity, but also some responsibility is placed on parents and coaches as well. Likewise, it is recommended that coaches create a more task-oriented team climate and focus on mastery-goals rather than performance goals. Future research may look at the male and female differences between the two types of passion as well whether or not the type of passion one possesses relate to their goal orientation as well.

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Appendix A

Sample recruitment email:

Hello [Coach's name],

      My name is MacKenzie Deighan and I am an undergraduate researcher here at UPEI. I am study kinesiology and am currently conducting a research project in sports psychology. For this project, I am looking at the levels of passion and goal orientation in university athletes and the effects those have on the university sport experience. I will be looking at both male and female athletes and am wondering if your team would be interesting in partaking in this study? The study includes three questionnaires, the University Sport Experience Survey, the Passion scale and the Task and Ego Orientation Scale, as well as a demographic form that will look at criteria such as age, sex and the specified sport the athlete plays at UPEI. The completion of each of these forms/questionnaires should take 15-20 minutes. If your team would be willing to participate, I am able to meet at any location during the best time suited for you and your team.

Your consideration is greatly appreciated.
Thank you,

MacKenzie Deighan

Letter of Information
Exploring the levels of Passion and Task and Ego Orientation between Male and Female University Athletes

The information below describes a research study and invites you to volunteer to participate in the research being conducted. You are free to keep a copy of this form.

The purpose of the present study is to gather information from approximately 100 university aged athletes regarding their types of goal orientation and passion and how these constructs related to their experiences in University sport.

The researchers for this study are MacKenzie Deighan and Dr. Dany MacDonald and from the University of Prince Edward Island. The requirements for participation in this research project are male and female University athletes at the University of Prince Edwards Island. The data collection will take place at a time and location agreed upon by the researcher and participants. During the data collection, which will occur at an agreed upon location, participants will begin by providing demographic information. Following the completion of the demographic information, participants will be asked to fill out three short questionnaires (University Sport Experiences Survey, Task and Ego Orientation in Sport Questionnaire, and Passion in Sport Scale). The data collection process will take approximately 15-20 minutes. Once data collection is complete, data will be pooled together to ensure anonymity and confidentiality of participants. Each participant will each be given an identification number to further ensure anonymity. As a reminder, participation in the study is completely voluntary and participants may withdraw at any time without consequence. For participants who withdraw, data collected up until that point will be destroyed. Participant information will help us to better understand the relationship between different passion, goal orientations and University sport experience.

All the information collected will remain confidential to all researchers. Throughout the study, data will be stored in a secure, password protected computer different from the one that data will be collected on. The computer is in a room that is locked at all times when no one is present. At no point in this study will information be shared with others. There are no physical, psychological, economic or social risks associated to participation in this study.

This research project has been approved by the Research Ethics Board of the University of Prince Edward Island. I understand that I can contact the UPEI Research Ethics Board at (902) 620-5104, or by e-mail at reb@upei.ca if I have any concerns about the ethical conduct of this study.

MacKenzie Deighan   Dany MacDonald, PhD
Department of Applied Human Sciences   Associate Professor
University of Prince Edward Island   Department of Applied Human Sciences
Email: madeighan@upei.ca   Email: danymacdonald@upei.ca;

PARTICIPANT INFORMED CONSENT FORM
Exploring the levels of Passion and Task and Ego Orientation between Male and Female University Athletes

I have read the letter of information and understand the purpose of the present research study. I have been given the opportunity to ask any questions or discuss the project with the researcher(s) and my questions/concerns have been answered to my satisfaction. I also understand that all of the information collected will remain confidential to the research team and that anonymity of my identity will be ensured. I understand that I can keep a copy of the signed and dated consent form. Finally, I realize that participation in this research is voluntary and I can withdraw from this study at any moment or choose to not answer any question posed without consequences and that any data collected to that point will be destroyed. I understand that if at any point during data collection or the question period, I do wish to withdraw from the study, the collected data will be destroyed. Data can be withdrawn until the data collection is complete, which is when the researcher and I have concluded data collection, I have had the opportunity to ask questions, and the researcher has left.

I consent to participate in this research project.

Participant Name   **Signature**   **Date**

_____   _____   _____

Name of researcher or research assistant   **Signature**   **Date**

_____   _____   _____

If you wish to receive a summary of the results, please check the box below and provide your contact information.

☐   Yes, I would like to receive a summary of the results

Send at the following address: _____
                                        _____
                                        _____

Or e-mail address: _____

This research project has been approved by the Research Ethics Board of the University of Prince Edward Island. I understand that I can contact the UPEI Research Ethics Board at (902)620-5104, or by e-mail at reb@upei.ca if I have any concerns about the ethical conduct of this study.

MacKenzie Deighan   Dany MacDonald, PhD
Undergraduate researcher   Associate Professor
Department of Applied Human Sciences   Department of Applied Human Sciences
University of Prince Edward Island   University of Prince Edward Island
Email: madeighan@upei.ca   Email: danymacdonald@upei.ca

TEOSQ

Name: _____   Age: _____   Sport: _____

I feel most successful in sport when…

		Strongly disagree	Disagree	Neutral	Agree	Strongly Agree
1	I'm the only one who can do the play or skill.					
2	I learn a new skill and it makes me want to practice more.					
3	I can do better than my friends.					
4	The others can't do as well as me.					
5	I learn something that is fun to do.					
6	Others mess up and I don't					
7	I learn a new skill by trying hard.					
8	I work really hard.					
9	I score the most point/goals/hits, etc.					
10	Something I learn makes me want to go and practice more.					
11	I'm the best.					
12	A skill I learn really feels right.					
13	I do my very best.					

Appendix E

My Sport

I play _____ **at the University of Prince Edward Island**

Please indicate your level of agreement with each item regarding your sport at UPEI

Not Agree at All	Very Slightly Agree	Slightly Agree	Moderately Agree	Mostly Agree	Strongly Agree	Very Strongly Agree
1	2	3	4	5	6	7

1. This activity is in harmony with the other activities in my life.   1   2   3   4   5   6   7

2. I have difficulties controlling my urge to do my activity.   1   2   3   4   5   6   7

3. The new things that I discover with this activity allow me to appreciate it even more.   1   2   3   4   5   6   7

4. I have almost an obsessive feeling for this activity.   1   2   3   4   5   6   7

5. This activity reflects the qualities I like about myself.   1   2   3   4   5   6   7

6. This activity allows me to live a variety of experiences.   1   2   3   4   5   6   7

7. This activity is the only thing that really turns me on.   1   2   3   4   5   6   7

8. My activity is well integrated in my life.   1   2   3   4   5   6   7

9. If I could, I would only do my activity.   1   2   3   4   5   6   7

10. My activity is in harmony with other things that are part of me.   1   2   3   4   5   6   7

11. This activity is so exciting that I sometimes lose control over it.   1   2   3   4   5   6   7

12. I have the impression that my activity controls me   1   2   3   4   5   6   7

13. I spend a lot of time doing this activity.   1   2   3   4   5   6   7

14. I love this activity.   1   2   3   4   5   6   7

15. This activity is important for me.   1   2   3   4   5   6   7

16. This activity is a passion for me.   1   2   3   4   5   6   7

17. This activity is part of who I am   1   2   3   4   5   6   7

Appendix F

The University Sport Experience Survey (USES)

Based on your current or recent involvement, please rate the level to which you agree or disagree with the following statements as they relate to your participation in your university sport program.

1	2	3	4	5	6	7
Strongly Disagree	Disagree	Somewhat Disagree	Uncertain	Somewhat Agree	Agree	Strongly Agree

As a result of my involvement in university sport:							
I am better at setting goals for myself	1	2	3	4	5	6	7
I am better at finding new ways of achieving my goals	1	2	3	4	5	6	7
I am more capable of putting all my energy into an activity that is important to me	1	2	3	4	5	6	7
I am better at pushing myself	1	2	3	4	5	6	7
I more capable of focusing my attention	1	2	3	4	5	6	7
I am better at developing plans for solving a problem	1	2	3	4	5	6	7
I am better able to organize my time and not procrastinate	1	2	3	4	5	6	7
I am better at setting my priorities	1	2	3	4	5	6	7
I am better at practicing self-discipline	1	2	3	4	5	6	7
I believe that I have improved my skills for finding information	1	2	3	4	5	6	7
I feel that I have improved my computer skills and ability to use the internet	1	2	3	4	5	6	7
I believe I have improve my creative skills	1	2	3	4	5	6	7
I believe my artistic skills have improved	1	2	3	4	5	6	7
I have a better understanding of what I have in common with people from different backgrounds	1	2	3	4	5	6	7
I have become better acquainted with someone from a different ethnic groups	1	2	3	4	5	6	7
I have made more friends that come from different social classes (richer or poorer)	1	2	3	4	5	6	7
I discuss morals and values more often with others	1	2	3	4	5	6	7
I am more aware of the different obstacles other people face	1	2	3	4	5	6	7
I am more appreciative of other people's backgrounds	1	2	3	4	5	6	7
I am more aware of how my emotions and attitude affect others in group situations	1	2	3	4	5	6	7
I am better at giving feedback	1	2	3	4	5	6	7

I am better at taking feedback	1	2	3	4	5	6	7
I know more about the challenges of being a leader	1	2	3	4	5	6	7
I am more confident that I can rise to the challenge when others are counting on me	1	2	3	4	5	6	7
I am better at being in charge of a group of peers	1	2	3	4	5	6	7
I am better at supporting others	1	2	3	4	5	6	7
I am more capable of standing up for myself	1	2	3	4	5	6	7
I believe I have come to know more people in the off-campus community	1	2	3	4	5	6	7
I feel more supported by the off-campus community	1	2	3	4	5	6	7
I feel more a part of my off-campus community	1	2	3	4	5	6	7
I am frequently unable to study enough for tests	1	2	3	4	5	6	7
I am unable to do things with family more often	1	2	3	4	5	6	7
I am often stressed	1	2	3	4	5	6	7
I often feel over-worked	1	2	3	4	5	6	7
I often do things that are morally inappropriate	1	2	3	4	5	6	7
I often consume alcohol	1	2	3	4	5	6	7
I frequently take drugs	1	2	3	4	5	6	7
I often feel like I don't belong	1	2	3	4	5	6	7
I often feel left out	1	2	3	4	5	6	7
I am frequently exposed to social cliques	1	2	3	4	5	6	7
I am frequently exposed to leaders who are controlling and manipulative	1	2	3	4	5	6	7
I am frequently exposed to leaders who make inappropriate sexual comments or jokes	1	2	3	4	5	6	7
I am frequently exposed to leaders who put down my ideas	1	2	3	4	5	6	7
I am frequently exposed to leaders who blame me for things beyond my control	1	2	3	4	5	6	7
I am often exposed to leaders who play favorites	1	2	3	4	5	6	7
I am often exposed to leaders who talk down to me	1	2	3	4	5	6	7

Appendix G

Demographic Form

Name:

Date of birth (DD/MM/YYYY):

Gender (circle one):   Male   Female   Other

University Sport Team:

Year of Eligibility:

Circle one: Starter   Non-Starter

Appendix H

Descriptive Statistics: All Subscales

	N	Mean	Std. Deviation
TEOEGO	139	2.4436	.87425
TEOTASK	139	4.1151	.64530
OBAVG	139	3.4748	1.43385
HPAVG	139	5.4472	.97183
initiative	139	5.5028	.99140
Basic Skills	139	3.9191	1.40400
Interrelationships	139	5.1343	1.12125
teamwork	139	5.6978	.86182
Networks and Social capital	139	4.9784	1.43300
stress	139	4.5036	1.43834
Negative interactions	139	2.6882	1.26084
Social exclusion	139	2.5012	1.32447
Inappropriate Adult behaviour	139	2.4640	1.57550
Valid N (listwise)	139		

```
REGRESSION
  /MISSING LISTWISE
  /STATISTICS COEFF OUTS R ANOVA
  /CRITERIA=PIN(.05) POUT(.10)
  /NOORIGIN
  /DEPENDENT Interrelationships
  /METHOD=STEPWISE Age Sex Eligib Status TEOEGO TEOTASK OBAVG HPAVG.
```

Regression Analysis of Interrelationships

Variables Entered/Removed[a]

Model	Variables Entered	Variables Removed	Method
1	HPAVG	.	Stepwise (Criteria: Probability-of-F-to-enter <= .050, Probability-of-F-to-remove >= .100).

a. Dependent Variable: Interrelationships

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.417[a]	.174	.167	1.03228

a. Predictors: (Constant), HPAVG

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	29.566	1	29.566	27.746	.000[b]
	Residual	140.660	132	1.066		
	Total	170.226	133			

a. Dependent Variable: Interrelationships

b. Predictors: (Constant), HPAVG

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
1	(Constant)	2.512	.505		4.972	.000
	HPAVG	.481	.091	.417	5.267	.000

a. Dependent Variable: Interrelationships

Excluded Variables[a]

Model		Beta In	t	Sig.	Partial Correlation	Collinearity Statistics Tolerance
1	Age	.074[b]	.938	.350	.082	1.000
	Sex	-.080[b]	-.992	.323	-.086	.972
	Eligib	.011[b]	.144	.886	.013	.992
	Status	.125[b]	1.565	.120	.135	.964
	TEOEGO	.108[b]	1.338	.183	.116	.950
	TEOTASK	.038[b]	.437	.663	.038	.816
	OBAVG	.102[b]	1.062	.290	.092	.674

a. Dependent Variable: Interrelationships

b. Predictors in the Model: (Constant), HPAVG

```
REGRESSION
  /MISSING LISTWISE
  /STATISTICS COEFF OUTS R ANOVA
  /CRITERIA=PIN(.05) POUT(.10)
  /NOORIGIN
  /DEPENDENT BasicSkills
  /METHOD=STEPWISE Age Sex Eligib Status TEOEGO TEOTASK OBAVG
HPAVG
```

Regression Analysis of Basic Skills

Variables Entered/Removed[a]

Model	Variables Entered	Variables Removed	Method
1	OBAVG	.	Stepwise (Criteria: Probability-of-F-to-enter <= .050, Probability-of-F-to-remove >= .100).
2	HPAVG	.	Stepwise (Criteria: Probability-of-F-to-enter <= .050, Probability-of-F-to-remove >= .100).

a. Dependent Variable: Basic Skills

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.410[a]	.168	.162	1.27132
2	.460[b]	.212	.200	1.24202

a. Predictors: (Constant), OBAVG

b. Predictors: (Constant), OBAVG, HPAVG

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	43.101	1	43.101	26.667	.000[b]
	Residual	213.345	132	1.616		
	Total	256.446	133			
2	Regression	54.364	2	27.182	17.621	.000[c]
	Residual	202.082	131	1.543		
	Total	256.446	133			

a. Dependent Variable: Basic Skills

b. Predictors: (Constant), OBAVG

c. Predictors: (Constant), OBAVG, HPAVG

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	2.504	.285		8.790	.000
	OBAVG	.395	.076	.410	5.164	.000
2	(Constant)	1.018	.617		1.651	.101
	OBAVG	.255	.091	.264	2.799	.006
	HPAVG	.361	.134	.255	2.702	.008

a. Dependent Variable: Basic Skills

Excluded Variables[a]

Model		Beta In	t	Sig.	Partial Correlation	Collinearity Statistics Tolerance
1	Age	.149[b]	1.891	.061	.163	.999
	Sex	-.117[b]	-1.425	.157	-.124	.928
	Eligib	.056[b]	.696	.488	.061	.976
	Status	.020[b]	.248	.805	.022	.999
	TEOEGO	-.032[b]	-.390	.697	-.034	.951
	TEOTASK	.106[b]	1.309	.193	.114	.961
	HPAVG	.255[b]	2.702	.008	.230	.674
2	Age	.150[c]	1.950	.053	.169	.999
	Sex	-.114[c]	-1.416	.159	-.123	.927
	Eligib	.056[c]	.718	.474	.063	.976
	Status	.066[c]	.828	.409	.072	.956
	TEOEGO	-.059[c]	-.732	.466	-.064	.937
	TEOTASK	.026[c]	.299	.765	.026	.813

a. Dependent Variable: BasicSkills

b. Predictors in the Model: (Constant), OBAVG

c. Predictors in the Model: (Constant), OBAVG, HPAVG

```
REGRESSION
  /MISSING LISTWISE
  /STATISTICS COEFF OUTS R ANOVA
  /CRITERIA=PIN(.05) POUT(.10)
  /NOORIGIN
  /DEPENDENT networksandcapital
  /METHOD=STEPWISE Age Sex Eligib Status TEOEGO TEOTASK OBAVG HPAVG.
```

Regression Analysis Adult Networks and Social Capital

Variables Entered/Removed[a]

Model	Variables Entered	Variables Removed	Method
1	HPAVG	.	Stepwise (Criteria: Probability-of-F-to-enter <= .050, Probability-of-F-to-remove >= .100).
2	TEOTASK	.	Stepwise (Criteria: Probability-of-F-to-enter <= .050, Probability-of-F-to-remove >= .100).

a. Dependent Variable: adultnetworksandsocialcapital

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.442[a]	.196	.190	1.28746
2	.482[b]	.232	.220	1.26285

a. Predictors: (Constant), HPAVG

b. Predictors: (Constant), HPAVG, TEOTASK

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	53.214	1	53.214	32.104	.000[b]
	Residual	218.796	132	1.658		
	Total	272.011	133			
2	Regression	63.092	2	31.546	19.780	.000[c]
	Residual	208.919	131	1.595		
	Total	272.011	133			

a. Dependent Variable: adultnetworksandsocialcapital

b. Predictors: (Constant), HPAVG

c. Predictors: (Constant), HPAVG, TEOTASK

Excluded Variables[a]

Model		Beta In	t	Sig.	Partial Correlation	Collinearity Statistics Tolerance
1	Age	.015[b]	.188	.851	.016	1.000
	Sex	-.007[b]	-.093	.926	-.008	.972
	Eligib	-.071[b]	-.901	.369	-.078	.992
	Status	.047[b]	.594	.553	.052	.964
	TEOEGO	.085[b]	1.066	.288	.093	.950
	TEOTASK	.211[b]	2.489	.014	.212	.816
	OBAVG	.015[b]	.155	.877	.014	.674
2	Age	.017[c]	.222	.825	.019	1.000
	Sex	-.026[c]	-.336	.737	-.029	.963
	Eligib	-.062[c]	-.799	.426	-.070	.989
	Status	.046[c]	.595	.553	.052	.964
	TEOEGO	.069[c]	.875	.383	.076	.943
	OBAVG	.030[c]	.316	.753	.028	.672

a. Dependent Variable: adultnetworksandsocialcapital

b. Predictors in the Model: (Constant), HPAVG

c. Predictors in the Model: (Constant), HPAVG, TEOTASK

```
REGRESSION
  /MISSING LISTWISE
  /STATISTICS COEFF OUTS R ANOVA
  /CRITERIA=PIN(.05) POUT(.10)
  /NOORIGIN
  /DEPENDENT initiative
  /METHOD=STEPWISE Age Sex Eligib Status TEOEGO TEOTASK OBAVG HPAVG.
```

Regression Analysis Initiative

Variables Entered/Removed[a]

Model	Variables Entered	Variables Removed	Method
1	HPAVG	.	Stepwise (Criteria: Probability-of-F-to-enter <= .050, Probability-of-F-to-remove >= .100).
2	TEOTASK	.	Stepwise (Criteria: Probability-of-F-to-enter <= .050, Probability-of-F-to-remove >= .100).
3	Status	.	Stepwise (Criteria: Probability-of-F-to-enter <= .050, Probability-of-F-to-remove >= .100).

a. Dependent Variable: initiative

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.494[a]	.244	.238	.86420
2	.548[b]	.300	.290	.83433
3	.568[c]	.323	.307	.82416

a. Predictors: (Constant), HPAVG

b. Predictors: (Constant), HPAVG, TEOTASK

c. Predictors: (Constant), HPAVG, TEOTASK, Status

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	31.768	1	31.768	42.536	.000[b]
	Residual	98.584	132	.747		
	Total	130.352	133			
2	Regression	39.161	2	19.581	28.129	.000[c]
	Residual	91.191	131	.696		
	Total	130.352	133			
3	Regression	42.050	3	14.017	20.636	.000[d]
	Residual	88.302	130	.679		
	Total	130.352	133			

a. Dependent Variable: initiative

b. Predictors: (Constant), HPAVG

c. Predictors: (Constant), HPAVG, TEOTASK

d. Predictors: (Constant), HPAVG, TEOTASK, Status

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	2.801	.423		6.623	.000
	HPAVG	.499	.076	.494	6.522	.000
2	(Constant)	1.788	.513		3.482	.001
	HPAVG	.384	.082	.381	4.706	.000

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	TEOTASK	.397	.122	.264	3.259	.001
3	(Constant)	2.381	.583		4.084	.000
	HPAVG	.355	.082	.351	4.332	.000
	TEOTASK	.399	.120	.264	3.308	.001
	Status	-.300	.146	-.152	-2.062	.041

a. Dependent Variable: initiative

Excluded Variables[a]

Model		Beta In	t	Sig.	Partial Correlation	Collinearity Statistics Tolerance
1	Age	.123[b]	1.631	.105	.141	1.000
	Sex	.067[b]	.877	.382	.076	.972
	Eligib	.100[b]	1.321	.189	.115	.992
	Status	-.151[b]	-1.974	.050	-.170	.964
	TEOEGO	.145[b]	1.888	.061	.163	.950
	TEOTASK	.264[b]	3.259	.001	.274	.816
	OBAVG	-.157[b]	-1.719	.088	-.148	.674
2	Age	.126[c]	1.733	.086	.150	1.000
	Sex	.044[c]	.595	.553	.052	.963
	Eligib	.112[c]	1.531	.128	.133	.989
	Status	-.152[c]	-2.062	.041	-.178	.964
	TEOEGO	.125[c]	1.673	.097	.145	.943
	OBAVG	-.139[c]	-1.573	.118	-.137	.672
3	Age	.089[d]	1.180	.240	.103	.910
	Sex	.037[d]	.505	.614	.044	.961
	Eligib	.067[d]	.864	.389	.076	.864
	TEOEGO	.128[d]	1.730	.086	.151	.943
	OBAVG	-.124[d]	-1.410	.161	-.123	.666

a. Dependent Variable: initiative

b. Predictors in the Model: (Constant), HPAVG

c. Predictors in the Model: (Constant), HPAVG, TEOTASK

d. Predictors in the Model: (Constant), HPAVG, TEOTASK, Status

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```
REGRESSION
  /MISSING LISTWISE
  /STATISTICS COEFF OUTS R ANOVA
  /CRITERIA=PIN(.05) POUT(.10)
  /NOORIGIN
  /DEPENDENT teamwork
  /METHOD=STEPWISE Age Sex Eligib Status TEOEGO TEOTASK OBAVG HPAVG.
```

Regression Analysis Teamwork and Social Skills

Variables Entered/Removed[a]

Model	Variables Entered	Variables Removed	Method
1	TEOTASK	.	Stepwise (Criteria: Probability-of-F-to-enter <= .050, Probability-of-F-to-remove >= .100).
2	HPAVG	.	Stepwise (Criteria: Probability-of-F-to-enter <= .050, Probability-of-F-to-remove >= .100).
3	Status	.	Stepwise (Criteria: Probability-of-F-to-enter <= .050, Probability-of-F-to-remove >= .100).

4	TEOEGO		.	Stepwise (Criteria: Probability-of-F-to-enter <= .050, Probability-of-F-to-remove >= .100).

a. Dependent Variable: teamwork

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.431[a]	.186	.180	.78836
2	.504[b]	.254	.243	.75755
3	.537[c]	.289	.272	.74257
4	.561[d]	.314	.293	.73198

a. Predictors: (Constant), TEOTASK

b. Predictors: (Constant), TEOTASK, HPAVG

c. Predictors: (Constant), TEOTASK, HPAVG, Status

d. Predictors: (Constant), TEOTASK, HPAVG, Status, TEOEGO

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	18.754	1	18.754	30.174	.000[b]
	Residual	82.040	132	.622		
	Total	100.794	133			
2	Regression	25.615	2	12.807	22.317	.000[c]
	Residual	75.179	131	.574		
	Total	100.794	133			
3	Regression	29.111	3	9.704	17.598	.000[d]
	Residual	71.683	130	.551		
	Total	100.794	133			
4	Regression	31.676	4	7.919	14.780	.000[e]
	Residual	69.118	129	.536		
	Total	100.794	133			

a. Dependent Variable: teamwork

b. Predictors: (Constant), TEOTASK

c. Predictors: (Constant), TEOTASK, HPAVG

d. Predictors: (Constant), TEOTASK, HPAVG, Status

e. Predictors: (Constant), TEOTASK, HPAVG, Status, TEOEGO

Coefficients[a]

Model		Unstandardized Coefficients B	Std. Error	Standardized Coefficients Beta	t	Sig.
1	(Constant)	3.352	.434		7.730	.000
	TEOTASK	.572	.104	.431	5.493	.000
2	(Constant)	2.631	.466		5.645	.000
	TEOTASK	.408	.111	.308	3.682	.000
	HPAVG	.256	.074	.289	3.458	.001
3	(Constant)	3.283	.525		6.251	.000
	TEOTASK	.409	.109	.308	3.768	.000
	HPAVG	.224	.074	.252	3.034	.003
	Status	-.330	.131	-.190	-2.518	.013
4	(Constant)	3.127	.523		5.983	.000
	TEOTASK	.389	.107	.293	3.620	.000
	HPAVG	.197	.074	.222	2.664	.009
	Status	-.335	.129	-.192	-2.590	.011
	TEOEGO	.162	.074	.164	2.188	.030

a. Dependent Variable: teamwork

Excluded Variables[a]

Model		Beta In	t	Sig.	Partial Correlation	Collinearity Statistics Tolerance
1	Age	.054[b]	.683	.496	.060	1.000
	Sex	-.017[b]	-.212	.833	-.018	1.000
	Eligib	.027[b]	.345	.730	.030	.993
	Status	-.230[b]	-3.002	.003	-.254	.994
	TEOEGO	.201[b]	2.578	.011	.220	.971
	OBAVG	.095[b]	1.187	.237	.103	.961
	HPAVG	.289[b]	3.458	.001	.289	.816

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2	Age	.057c	.751	.454	.066	1.000
	Sex	.034c	.446	.657	.039	.963
	Eligib	.044c	.574	.567	.050	.989
	Status	-.190c	-2.518	.013	-.216	.964
	TEOEGO	.161c	2.100	.038	.181	.943
	OBAVG	-.073c	-.792	.430	-.069	.672
3	Age	.001d	.016	.987	.001	.910
	Sex	.025d	.336	.738	.030	.961
	Eligib	-.026d	-.329	.743	-.029	.864
	TEOEGO	.164d	2.188	.030	.189	.943
	OBAVG	-.053d	-.585	.559	-.051	.666
4	Age	-.021e	-.270	.788	-.024	.895
	Sex	.063e	.826	.411	.073	.918
	Eligib	-.052e	-.651	.516	-.057	.847
	OBAVG	-.078e	-.870	.386	-.077	.656

a. Dependent Variable: teamwork

b. Predictors in the Model: (Constant), TEOTASK

c. Predictors in the Model: (Constant), TEOTASK, HPAVG

d. Predictors in the Model: (Constant), TEOTASK, HPAVG, Status

e. Predictors in the Model: (Constant), TEOTASK, HPAVG, Status, TEOEGO

```
REGRESSION
  /MISSING LISTWISE
  /STATISTICS COEFF OUTS R ANOVA
  /CRITERIA=PIN(.05) POUT(.10)
  /NOORIGIN
  /DEPENDENT socialexculsion
  /METHOD=STEPWISE Age Sex Eligib Status TEOEGO TEOTASK OBAVG HPAVG.
```

Regression Analysis Social Exclusion

Variables Entered/Removed[a]

Model	Variables Entered	Variables Removed	Method
1	TEOEGO	.	Stepwise (Criteria: Probability-of-F-to-enter <= .050, Probability-of-F-to-remove >= .100).

a. Dependent Variable: socialexculsion

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.189[a]	.036	.028	1.29917

a. Predictors: (Constant), TEOEGO

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	8.258	1	8.258	4.893	.029[b]
	Residual	222.794	132	1.688		
	Total	231.052	133			

a. Dependent Variable: socialexculsion

b. Predictors: (Constant), TEOEGO

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.

1	(Constant)	1.807	.331		5.466	.000
	TEOEGO	.282	.128	.189	2.212	.029

a. Dependent Variable: socialexculsion

Excluded Variables[a]

Model		Beta In	t	Sig.	Partial Correlation	Collinearity Statistics Tolerance
1	Age	-.103[b]	-1.198	.233	-.104	.988
	Sex	.110[b]	1.257	.211	.109	.946
	Eligib	-.040[b]	-.460	.647	-.040	.990
	Status	.083[b]	.967	.335	.084	.999
	TEOTASK	.086[b]	.986	.326	.086	.971
	OBAVG	.046[b]	.525	.601	.046	.951
	HPAVG	.002[b]	.023	.981	.002	.950

a. Dependent Variable: socialexculsion

b. Predictors in the Model: (Constant), TEOEGO

```
REGRESSION
  /MISSING LISTWISE
  /STATISTICS COEFF OUTS R ANOVA
  /CRITERIA=PIN(.05) POUT(.10)
  /NOORIGIN
  /DEPENDENT neginteractions
  /METHOD=STEPWISE Age Sex Eligib Status TEOEGO TEOTASK OBAVG HPAVG.
```

Regression Analysis Negative Peer Interactions

Variables Entered/Removed[a]

Model	Variables Entered	Variables Removed	Method
1	TEOEGO	.	Stepwise (Criteria: Probability-of-F-to-enter <= .050, Probability-of-F-to-remove >= .100).

a. Dependent Variable: neginteractions

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.234[a]	.055	.047	1.23656

a. Predictors: (Constant), TEOEGO

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	11.643	1	11.643	7.614	.007[b]
	Residual	201.838	132	1.529		
	Total	213.480	133			

a. Dependent Variable: neginteractions

b. Predictors: (Constant), TEOEGO

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.887	.315		5.997	.000
	TEOEGO	.335	.122	.234	2.759	.007

a. Dependent Variable: neginteractions

Excluded Variables[a]

Model		Beta In	t	Sig.	Partial Correlation	Collinearity Statistics Tolerance
1	Age	.018[b]	.211	.833	.018	.988
	Sex	-.117[b]	-1.355	.178	-.118	.946
	Eligib	-.014[b]	-.160	.873	-.014	.990
	Status	-.005[b]	-.059	.953	-.005	.999
	TEOTASK	-.076[b]	-.888	.376	-.077	.971
	OBAVG	.033[b]	.384	.701	.034	.951
	HPAVG	-.053[b]	-.604	.547	-.053	.950

a. Dependent Variable: neginteractions

b. Predictors in the Model: (Constant), TEOEGO

```
REGRESSION
  /MISSING LISTWISE
  /STATISTICS COEFF OUTS R ANOVA
  /CRITERIA=PIN(.05) POUT(.10)
  /NOORIGIN
  /DEPENDENT inappropriatebehaviour
  /METHOD=STEPWISE Age Sex Eligib Status TEOEGO TEOTASK OBAVG HPAVG.
```

Regression Analysis Inappropriate Adult Behaviour

Variables Entered/Removed^a

Model	Variables Entered	Variables Removed	Method
1	Eligib	.	Stepwise (Criteria: Probability-of-F-to-enter <= .050, Probability-of-F-to-remove >= .100).
2	HPAVG	.	Stepwise (Criteria: Probability-of-F-to-enter <= .050, Probability-of-F-to-remove >= .100).

a. Dependent Variable: inappropriatebehaviour

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.215^a	.046	.039	1.56582
2	.283^b	.080	.066	1.54345

a. Predictors: (Constant), Eligib

b. Predictors: (Constant), Eligib, HPAVG

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	15.643	1	15.643	6.380	.013[b]
	Residual	323.638	132	2.452		
	Total	339.280	133			
2	Regression	27.206	2	13.603	5.710	.004[c]
	Residual	312.075	131	2.382		
	Total	339.280	133			

a. Dependent Variable: inappropriatebehaviour

b. Predictors: (Constant), Eligib

c. Predictors: (Constant), Eligib, HPAVG

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.831	.292		6.261	.000
	Eligib	.280	.111	.215	2.526	.013
2	(Constant)	3.528	.822		4.291	.000
	Eligib	.258	.110	.198	2.352	.020
	HPAVG	-.302	.137	-.185	-2.203	.029

a. Dependent Variable: inappropriatebehaviour

Appendix J

Excluded Variables[a]

Model		Beta In	t	Sig.	Partial Correlation	Collinearity Statistics Tolerance
1	Age	-.041[b]	-.366	.715	-.032	.568
	Sex	.043[b]	.509	.611	.044	.998
	Status	.069[b]	.765	.445	.067	.891
	TEOEGO	.042[b]	.493	.623	.043	.990
	TEOTASK	-.145[b]	-1.710	.090	-.148	.993
	OBAVG	.007[b]	.080	.936	.007	.976
	HPAVG	-.185[b]	-2.203	.029	-.189	.992
2	Age	-.028[c]	-.251	.802	-.022	.566
	Sex	.012[c]	.144	.886	.013	.969
	Status	.025[c]	.268	.789	.023	.842
	TEOEGO	.091[c]	1.049	.296	.092	.936
	TEOTASK	-.081[c]	-.869	.386	-.076	.814
	OBAVG	.166[c]	1.620	.108	.141	.663

a. Dependent Variable: inappropriatebehaviour

b. Predictors in the Model: (Constant), Eligib

c. Predictors in the Model: (Constant), Eligib, HPAVG

Reliability Obsessive Passion

Case Processing Summary

		N	%
Cases	Valid	139	100.0
	Excluded[a]	0	.0
	Total	139	100.0

Reliability Statistics

Cronbach's Alpha	N of Items
.853	6

Reliability Harmonious Passion

Case Processing Summary

		N	%
Cases	Valid	139	100.0

		N	%
	Excluded[a]	0	.0
	Total	139	100.0

Reliability Statistics

Cronbach's Alpha	N of Items
.850	6

Reliability Task Orientation (TEOSQ)

Case Processing Summary

		N	%
Cases	Valid	139	100.0
	Excluded[a]	0	.0
	Total	139	100.0

Reliability Statistics

Cronbach's Alpha	N of Items
.863	7

Reliability Ego Orientation (TEOSQ)

Case Processing Summary

		N	%
Cases	Valid	139	100.0
	Excluded[a]	0	.0
	Total	139	100.0

Reliability Statistics

Cronbach's Alpha	N of Items
.839	6

Reliability of Initiative (USES)

Case Processing Summary

		N	%
Cases	Valid	139	100.0
	Excluded[a]	0	.0
	Total	139	100.0

Reliability Statistics

Cronbach's Alpha	N of Items
.911	9

Reliability of Basic Skills (USES)

Case Processing Summary

		N	%
Cases	Valid	139	100.0

		N	%
	Excluded[a]	0	.0
	Total	139	100.0

Reliability Statistics

Cronbach's Alpha	N of Items
.792	4

Reliability of Interpersonal Relationships (USES)

Case Processing Summary

		N	%
Cases	Valid	139	100.0
	Excluded[a]	0	.0
	Total	139	100.0

Reliability Statistics

Cronbach's Alpha	N of Items
.788	6

Reliability of Teamwork and Social Skills (USES)

Case Processing Summary

		N	%
Cases	Valid	139	100.0
	Excluded[a]	0	.0
	Total	139	100.0

Reliability Statistics

Cronbach's Alpha	N of Items
.880	8

Reliability of Adult Networks and Social Capital (USES)

Case Processing Summary

		N	%
Cases	Valid	139	100.0
	Excluded[a]	0	.0
	Total	139	100.0

Reliability Statistics

Cronbach's Alpha	N of Items
.847	3

Reliability of Stress (USES)

Case Processing Summary

		N	%
Cases	Valid	139	100.0
	Excluded[a]	0	.0
	Total	139	100.0

Reliability Statistics

Cronbach's Alpha	N of Items
.810	4

Reliability of Negative Peer Interactions (USES)

Case Processing Summary

		N	%
Cases	Valid	139	100.0
	Excluded[a]	0	.0
	Total	139	100.0

Reliability Statistics

Cronbach's Alpha	N of Items
.571	3

Reliability of Social Exclusion (USES)

Case Processing Summary

		N	%
Cases	Valid	139	100.0
	Excluded[a]	0	.0
	Total	139	100.0

Reliability Statistics

Cronbach's Alpha	N of Items
.809	3

Reliability of Inappropriate Adult Behavior (USES)

Case Processing Summary

		N	%
Cases	Valid	138	99.3
	Excluded[a]	1	.7
	Total	139	100.0

Reliability Statistics

Cronbach's Alpha	N of Items
.929	6