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# Effects of Team Identification on Social and Emotional Adjustment at a Division II University

Evan A. Davis

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EFFECTS OF TEAM IDENTIFICATION ON SOCIAL AND EMOTIONAL ADJUSTMENT  
AT A DIVISION II UNIVERSITY

A Thesis

Submitted to the School of Graduate Studies and Research

in Partial Fulfillment of the

Requirements for the Degree

Master of Science

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December 2017

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Title: Effects of Team Identification on Social and Emotional Adjustment at a Division II University

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Being able to have a successful adaptation to college is crucial for a student's success and retention. Social support and a sense of school belonging have been linked to successful adaptation which means that universities must seek ways to improve both of these in order to promote adaptation. Intercollegiate athletics has often been associated as a venue on campuses that provides students with the opportunities to develop new social connections and enhance their sense of belonging to the university through identification with their university athletic teams. Previous research has proposed that students who highly identify with a team are likely to experience improved psychological well-being which has been shown to be a predictor of successful college adaptation. The purpose of this study is to examine the relationships among a student's level of team identification, personal self-esteem, social adjustment, and emotional adjustment. Results from the study suggest that a student's level of team identification is not related to their level of personal self-esteem or social adjustment. In addition, personal self-esteem was found to have a positive impact on a student's social and emotional adjustment.

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## CHAPTER I

### INTRODUCTION

The shift from high school to the university setting can be a very stressful time in one's life. Often students are venturing out on their own for the first time and moving away from friends and family. Entering college can be quite the challenge for new students but it also provides them with a great opportunity to learn and grow. In order for a student to overcome the initial challenges and stress that comes with starting college they must be able to adapt to their new situation. If a student fails to adapt quickly then they may end up dealing with difficulties in their academic work and their psychological well-being. Having a smooth transition to college life is crucial for students and being able to adjust properly can make a world of difference.

Studies have shown that one of the keys to a student's successful adaptation to college life is having social support. Wang et al. (2006) determined that social support had a positive effect on a student's adjustment to college life when the student was able to use it in unison with positive coping techniques. In their longitudinal study on the emotional, social, and academic adjustment of college students Gerdes and Mallinckrodt (1994) found that being integrated into the social fabric of campus life and forming a support network played a critical role in student retention. Both of these studies provide evidence that if students are to successfully adapt to college life it requires some form of social support. When students begin college they are normally away from their well-established social support system of friends and family who may be back home or away at other universities. Finding a new social support system on campus can be a tall task for students who must handle all of the added stressors that come with college life. One of the best ways for students to find the social support that they need is to join a social group on campus. A social group is commonly defined as two or more people who interact with one

another, share similar characteristics, and collectively have a sense of unity. Social groups can come in various shapes, sizes, and can be found across campuses in various forms such as clubs, Greek Life, and intramural athletics. The benefits of joining a social group are recognized by social identity theory which suggests that a student can improve their personal self-esteem through association with a social group (Tajfel & Turner, 1979).

While establishing a social group and receiving social support is important to a student's adjustment their psychological well-being is also a key contributor. Pittman and Richmond (2007, 2008) examined the effects of a sense of university belonging on a student's psychological and academic adjustment. They discovered that a sense of university belonging was linked to students' positive self-perceptions of social acceptance and scholastic competence (Pittman & Richmond, 2007, 2008). Therefore, creating an environment where students are able to enhance their sense of university belonging can lead to students having a successful emotional and academic adjustment. With this knowledge it is important for universities to find ways to enhance a sense of belonging within their students and the development of more positive friendships (Pittman & Richmond, 2008). In order to foster a sense of university belonging it is crucial for administrators to create an environment where students are able to interact with each other and develop strong bonds. One area of university life that has been associated with promoting a sense of community is intercollegiate athletics. Intercollegiate athletic teams are often claimed to be sources of pride, identity, and promoters of social cohesion on campuses where their athletic competitions provide a venue for students and alumni to interact with one another which, in turn, increases communality. The importance of intercollegiate athletics in the development of a sense of university belongingness is supported by Toma (1998) who found that a strong sense of attachment to a sports team is one of the factors influencing the extent to which

students interact with one another while activities surrounding attendance at collegiate athletic events serve as a surrogate for the more intimate community-building activities.

When students become fans of their teams and develop a strong sense of attachment they will be more likely to identify with other fans who associate with the team, which will lead to becoming part of a social group. This attachment and commitment is a well-developed theoretical concept known as team identification which is defined as, “a fan’s psychological connection to a team, that is, the extent to which the fan views the team as an extension of his or herself” (Wann et al., 2001). Team identification has been the focal point of multiple studies completed by Wann and colleagues who have paid particular attention to the effect that an individual’s level of team identification has on their psychological well-being. Their studies have shown that team identification has a significant impact on psychological well-being including high personal self-esteem, low alienation, low depression, and low loneliness (Branscombe & Wann, 1991; Wann, 2006). Along with this they have found that individuals who highly identified with a team were more likely to reflect personal self-concept through maintaining social connections with associated group members (Wann, 2000).

Using the theoretical concept of team identification, and the knowledge that intercollegiate athletics are seen as a tool for community building on campuses, it seems reasonable to believe that a student’s level of team identification could be a predictor of their emotional and social adjustments to college. In theory, intercollegiate athletic events provide venues where students have the opportunity to develop new social connections and become part of a social group. As a student begins to identify with their university teams, their social connections with other fans will grow stronger and they will see positive effects on their psychological well-being. These newly developed social connections would be assist the student

in their social adjustment while the psychological benefits would assist in their emotional adjustment.

The concept of team identification having an effect on a student's social and emotional adjustment has only been examined in one study to date. In this study, Koo et al. (2015) determined that team identification did have a positive effect on students' social and emotional adjustment to college life. However, their study only investigated its effect at an FBS university which may not provide an accurate representation of the varying universities across the country. This study uses the research conducted by Koo et al. (2015) as a framework to investigate if team identification can be found to have the same positive effects on a student's social and emotional adjustment at a DII university in western Pennsylvania. Therefore, the purpose of this study is to examine the direct and indirect effects of team identification on personal self-esteem, social adjustment, and emotional adjustment.

### **Research Questions**

RQ1: Does team identification with a college athletics program have a positive impact on personal self-esteem?

RQ2: Does personal self-esteem have a positive impact on social and emotional adjustment?

RQ3: Does team identification with a college athletics program have a positive impact on social adjustment?

### **Hypotheses**

1. Team identification will have a positive impact on personal self-esteem.
2. Personal self-esteem will have a positive impact on social and emotional adjustment.
3. Team identification will have direct impact on social adjustment.

### **Limitations**

1. Sample may not provide an accurate and equal representation of the university population.
2. The sample will be drawn from one NCAA institution which may not accurately represent other universities within the NCAA.
3. The use of one sport (men's basketball) to measure students' level of team identification may fail to account for differences with how they identify with other teams on campus.

### **Assumptions**

1. The participants will complete the survey honestly and correctly.
2. Participants will be current undergraduate students at Indiana University of Pennsylvania.
3. Participants will understand the instructions as intended.

### **Definition of Terms**

Team identification- "A fan's psychological connection to a team, that is, the extent to which the fan views the team as an extension of his or herself" (Wann et al., 2001, p. 4).

School belonging- Student's perception of being accepted and respected in their particular school setting.

Social identity theory – “Refers to an individual’s knowledge that he belongs to certain social groups together with some emotional and value significance to him of this group membership” (Tajfel, 1972, p. 292).

Sport Spectator Identification Scale (SSIS) - A scale developed by Wann & Branscombe (1993) in order to measure an individual’s level of team identification. The scale consists of a total of 8 items that are measured on a Likert Scale ranging from 1 to 8. This scale was adapted and used in the survey for this study.

UCLA Loneliness Scale – A scale developed at UCLA that was first published in 1978 and revised in 1980 and 1996. It is “a 20-item scale designed to measure one’s feelings of loneliness as well as feelings of social isolation” (Russell et al. 1978). Items are rated on a scale from 1 (Never) to 4 (Often). This scale was adapted and used in the survey for this study.

Rosenberg Self-Esteem – A “10-item scale that measures global self-worth by measuring both the positive and negative feelings about the self” (Rosenberg, 1965). Items are measured on a 4-point Likert scale ranging from strongly agree to strongly disagree (Rosenberg, 1965). This scale was adapted and used in the survey for this study.

Perceived Stress Scale (PSS-10) – A 10-items scale that measures “the degree to which situations in one’s life are appraised as stressful” (Cohen, 1983, p. 385). Items are measured on a 5-point Likert scale ranging from 0 (Never) to 4 (Very Often). This scale was adapted and used in the survey for this study.

Team Identification, Social and Emotional Adjustment Survey – Survey developed by Koo et al. (2015) in order to measure the effects of team identification on social and emotional adjustment of college students. This survey adapted questions from the SSIS, the UCLA Loneliness Scale, Rosenberg Self-Esteem Scale, and PSS-10.

Likert Scale – A scale used in the Team Identification, Social and Emotional Adjustment survey that consist of answers between 1 (strongly disagree) and 5 (strongly agree) to measure team identification, personal self-esteem, social adjustment, and emotional adjustment.

### **Significance of Study**

Research on this topic is relevant for a multiple reasons. First, the shift to college life is a major change in many students' lives. At college, most students are away from their family and friends who they normally rely on for social and emotional support. Since this is the case, students need to create new social connections in order to develop a social support system. One of the best ways for students to create these new connections is through on campus groups and social activities. College athletics provide an environment on campuses where students can interact with each other and create important social connections and develop a greater sense of university belonging. This study will investigate the effects of team identification on school adjustment and determine whether college athletics can be used as a useful intervention tool by college administrators in order to help students with their adjustment to college life.

Another reason this study is pertinent is because it will add to previous research conducted on the effects of team identification on school adjustment. Koo and colleagues (2015) discovered that team identification had a positive effect on social and emotional adjustment at an FBS university. Their research provided the ground work for this study and showed that college athletics can be used by college administrators to develop school belonging and community on campus. This study will extend previous research on the topic by investigating whether the same effects occur at the Division II level of college athletics. While it is clear that FBS college athletic programs can have major impacts on college campuses (Koo et al, 2015; Toma, 1998; Clopton 2008) there is a lack of research investigating the impact of Division II athletic

programs on their college campuses. This study aims to provide a better understanding of the impact college athletic programs have on smaller university campuses and in doing so will help to determine if college administrators at Division II universities should use their athletic programs as a means of promoting school belonging and helping students to develop new social connections. Therefore, the purpose of this study is to examine the direct and indirect effects of team identification on personal self-esteem, social adjustment, and emotional adjustment.

### **Problem Statement**

Adjusting to college life can be a major challenge for undergraduate students. Failing to adjust properly can lead to negative effects on a student's psychological well-being. This study is aiming to determine if identification with a college athletic team can lead to positive effects on personal self-esteem, which in turn, may lead to positive effects on social and emotional adjustment. This study will investigate undergraduate students' identification with university athletic teams and whether this identification assists in their social and emotional adjustment to college.

## CHAPTER II

### REVIEW OF LITERATURE

The shift to college is a major transition for students. Those who fail to adapt to their new environment often experience stress, depression, and struggle with their psychological well-being. It is important for college administrators and advisors to understand how they can assist students with their transition to college life in order to ensure a successful adjustment.

Research has shown that one of the most crucial factors in a student's adjustment to college is the development of social groups which provide the student with social and emotional support (Friedlander et al., 2007; Awang et al., 2014; Gerdes & Malinckrodt, 1994). In order to understand the benefits that joining social groups can have on a student's adjustment it is vital to understand social identity theory.

#### **Social Identity Theory**

An important concept in the theoretical framework of this study is social identity theory. According to Tajfel (1972, p. 292) social identity theory refers to "the individual's knowledge that he belongs to certain social groups together with some emotional and value significance to him of this group membership". Individuals use social group memberships in order to define themselves and their social identity may be understood as their definition of their own position within a system of social categories (Turner, 1975).

Social identity theory is often used as the proper way to explain the intangible benefits of social group memberships. It suggests that a valued social group can improve an individual's personal self-esteem based on the level of affiliation with the in-group (Tajfel, 1981; Turner, 1975). This theory shows the significance that social groups have in society and how they

membership in a social group can positively affect individuals and determine how they define themselves within society.

Social identity theory is vital to understanding this study due to its application in the sport context to examine team identification, its importance in developing social groups for school adjustment, and its explanation of social group membership benefits of an individual's self-esteem. The following section will discuss the importance of a student's personal self-esteem and its link to being a predictor of school adjustment.

### **Personal Self-Esteem**

One of the main constructs that is being examined within this study is personal self-esteem, in particular looking at how it relates to team identification and its ability to serve as a predictor for successful school adjustment. Personal self-esteem is commonly defined as "an individual's overall sense of self-worth or personal value". In general, an individual's level of personal self-esteem has been found to be closely associated with their well-being and other adaptive outcomes.

In this study the focus on personal self-esteem is focused around its ability to be a predictor of school adjustment which previous research indicates is possible. For example, in their study investigating the joint effects of stress, social support, and self-esteem on university adjustment Friedlander et al. (2007) found that students who had higher levels of personal self-esteem had decreased depression along with increased academic and social adjustment. In particular Friedlander et al. (2007) noted that students who felt good about themselves, or felt competent in a specific area, gave students the confidence to tackle diverse stressors, leading to improvement in their adjustment.

Further support for the notion that personal self-esteem can be a predictor of school adjustment can be found in a study conducted by Credé & Niehorster (2012). In this study the authors performed a meta-analytic review of literature related to the topic of college adjustment. Through their analysis Credé & Niehorster (2012) found that college adjustment was multidimensional and related to individual traits, social support, and students' relationships with their parents. One of the individual traits cited by Credé & Niehorster (2012) as being strongly positively related to college adjustment was self-esteem which was a trait that deemed reflective of students who were organized, self-confident, were able to cope with high academic demands, and form new relationships.

It is clear from research that a student's personal self-esteem is a key predictor of their adjustment to college life. In particular, students who have higher levels of personal self-esteem are likely to feel better about themselves which provides them with the necessary tools to have a successful adjustment. While personal self-esteem is a key predictor of school adjustment it is not the only one. The following section will provide background on the determinants for school adjustment in the university setting.

### **Determinants of School Adjustment**

Since this study focuses on students' ability to adjust to university life in terms of social and emotional adjustment it is important to understand the factors that contribute to a student's successful adjustment. Integrating students into the social fabric of campus life has been shown to be an important factor in student retention (Gerdes & Mallinckrodt, 1994). When students become integrated into the social fabric of campus life they are able to interact with their peers and develop new social connections.

Social connections can be used by students to develop social groups and social support which has been shown throughout research as a determinant of school adjustment. Friedlander and colleagues (2007) showed support for this notion through their investigation of social support and school adjustment. Their study found that social support was an important protective factor that assisted students in making the transition to university (Friedlander et al., 2007). Through the formation of social groups students are able to interact with other students and develop important relationships and social networks. While family support does play a role in a student's overall adjustment to university life, social support from friends has been shown to be a greater predictor in increases in a student's personal-emotional, social, and overall adjustment (Friedlander et al., 2007).

Awang and colleagues (2014) also provided evidence that social support plays a critical role in a student's successful adjustment to college. Through interviews with students Awang and colleagues discovered that the nature of support and opportunities for sharing and learning through peer interactions was important for personal and academic development (Awang et al., 2014). Another important note from this study was that students relied on their peers at university as their primary source of emotional support since friends and family were far away. These findings support the notion that students need to develop worthwhile social connections in order to adjust to university life properly and receive the emotional support they need.

Along with developing social support research has shown that a sense of school belonging may be just as important. A sense of school belonging is commonly referred to as connectedness to one's school or perceived school membership. Research conducted by Pittman and Richmond (2007, 2008) has shown that a sense of school belonging may be a key component in a college student's successful adjustment to college life. Students with a greater

sense of university belonging perform better academically, feel more competent scholastically, and have higher self-worth (Pittman & Richmond, 2007). These findings were supported by Pittman and Richmond (2008) who discovered that a sense of school belonging that was linked to positive self-perceptions of social acceptance and scholastic competence.

Since social support and a sense of school belonging are vital to a student's adjustment to college it is important for universities to enhance their sense of community on campus. One the most common areas on college campuses that are used to enhance this sense of community is college athletics. The following section will provide background on the role of intercollegiate athletics on college campuses.

### **College Athletics and University Community**

Developing a sense of community on campus can go a long way in helping to build a sense of school belonging amongst students. One area of campus life that can play a vital role in developing a sense of community and impact a college's image are intercollegiate athletics. Intercollegiate athletics serve as a surrogate for more intimate community-building activities (Toma, 1998). Research has shown that college athletics have the ability to develop a sense of community, improve social capital of students, and contribute to academic adjustment.

Toma (1998) conducted interviews with administrators, students, and faculty across numerous college campuses that varied in variables such as student population and athletic success. Through his research Toma (1998) concluded that college athletics played a major role in developing a sense of community within a university and that spectator sports have the ability to enhance institutional identity. Clopton (2007) added additional evidence to this belief finding that a positive relationship exists between college athletics and the sense of community on campus.

Sung and colleagues (2015) have also contributed evidence that college athletics can provide intangible benefits to college campuses. Their findings showed that team identification had a significant role in enhancing a sense of university belonging which has a direct impact on enhancing academic performance (Sung et al, 2015). By enhancing a sense of university belonging college athletics were able to improve the sense of community and provide a tool for social affiliation through involvement in college athletics.

Further evidence for the role of college athletics in the developing a sense of community within a university can be found in work completed by Clopton & Finch (2010). In this study the authors found that students who maintained identification with their university athletic teams saw a direct impact upon their level of social capital. This finding supported previous works that showed team identity enhances an individual's sense of community (Clopton, 2007, 2008) and has the ability to improve an individual's social well-being (Wann, 2006).

Intercollegiate athletics can serve as a great outlet on college campuses for students to interact and develop a sense of community. As students attend more games they will be more likely to identify and associate with their university's athletic teams. This identification that fans develop with a team is known as fan identification which will be discussed in the following section.

### **Team Identification**

Team identification is defined as “a fan's psychological connection to a team, that is, the extent to which the fan views the team as an extension of his or herself” (Wann et al., 2001, p. 4). Research on team identification has occurred on a number of different subjects and categories. One of the main areas that team identification is applied to is to identify the habits and behaviors of sport consumers. However, Heere and James (2007) suggest that a sports team

and its fans may be considered nothing more than an in-group meaning that team identification should be viewed as a multi-dimensional construct like social identity theory. This would allow for fans to be seen as members of a special group, community members, rather than just a consumer of a product (Heere & James, 2007).

Viewing fans as members of a special group rather than just consumers is something that can be found throughout research that has examined team identification. In particular, research has been common in assessing the effects of team identification on psychological well-being. Branscombe and Wann (1991) investigated the relationships between team identification and an individual's self-worth and an individual's feelings of depression. The following section will provide a more detailed look into research conducted on the effects of team identification on personal self-esteem.

### **Effects of Team Identification on Personal Self-Esteem**

Individuals who highly identify with a sports team are more likely to show elevated levels of self-esteem, low alienation, low depression, and low loneliness. (Branscombe & Wann, 1991; Wann, 2006). Wann's (2006) Psychological Health Model provides an important basis for understanding the effects that team identification has on personal self-esteem. In this model Wann (2006) specifies that higher team identification leads to positive effects on psychological well-being. These positive effects on psychological well-being can be seen due to important connections being made with others which leads to an overall sense of belongingness and camaraderie with others (Wann, 2006).

Forming these connections are a vital part of team identification having a positive effect on personal self-esteem and without them it is unlikely that any positive effects will be seen. The connections formed between individuals through team identification can be either enduring or

transient. Enduring connections occur when a fan resides in an environment in which other fans of the team are easily identifiable, such as supporting a hometown team. (Wann, 2006). While transient connections result from situations where the fan is not residing in an enduring environment such as a Chicago Cubs fan who lives in St. Louis (Wann, 2006).

Fans who are able to build enduring connections are able to reap the psychological benefits from a sense of connectedness while fans who create transient connections are unlikely to see any psychological benefits (Wann, 2006). College student who support their university athletic teams are more likely to build enduring connections due to them being surrounded by other easily identifiable fans. Since college students are in an environment where they can build enduring connections through team identification with their university athletic teams it is likely that they will be able to experience positive psychological benefits.

Along with this it has been shown that individuals who have a high association with a team will have stronger feelings of self-worth and a positive effect on personal sense of who they are (Branscombe & Wann, 1991; Wann, 2000). Therefore, it is important for fans not to only identify with the team but also develop a high level of association. As a student increase the level the associate with the team they will develop stronger social groups, which in turn, will increase their personal self-esteem. An increase in personal self-esteem can then have a positive effect on school adjustment which will be discussed in the following section.

### **Effects of Personal Self-Esteem on School Adjustment**

As discussed previously a sense of school belonging plays a vital role in a student's adjustment to college life (Pittman & Richmond, 2007, 2008). This sense of school belonging can fostered through intercollegiate athletics which provide an outlet for students to adapt to the college environment. According to Gerdes and Mallinckrodt (1994) a student's social and

emotional adjustment to college may be determined by becoming integrated into the social fabric of college and forming a support network.

Intercollegiate athletics provide students the opportunity to increase their interactions with their peers and develop a sense of attachment with their university teams. The more a student associates and identifies with their university the more likely they will be to develop enduring connections with in-group members which will lead to positive effects on their personal self-esteem (Wann, 2006). Research has shown that personal self-esteem is an accurate predictor of a student's school adjustment. Friedlander and colleagues (2007) found that students who felt good about themselves were more likely to effective strategies to deal with academic and social demands that are common in the university environment.

Personal self-esteem derived from team identification with university athletic teams has been shown to be positively related with school adjustment. Koo et al. (2015) discovered that personal self-esteem had a direct effect on emotional as well as social adjustment to college life. This finding provides reasonable evidence that personal self-esteem derived from team identification is related to social and emotional adjustment to college life.

## CHAPTER III

### METHODOLOGY

The purpose of this study was to investigate the direct and indirect effects of team identification on personal self-esteem, social adjustment, and emotional adjustment. In this section an overview of the participants in the study will be provided along with a discussion of the recruitment strategies used to generate a sample. In addition, this section will further expand on the instrument used to measure the variables, the procedures that were conducted throughout the study, and a brief summary of the statistical analysis that was used to assess the collected data.

#### **Participants**

A random sample of 255 undergraduate students (18-23 years old) who were currently enrolled at Indiana University of Pennsylvania participated in this study. Of the total 255 students 70 (27.5%) were male and 182 (71.4%) were female including 67 freshmen (26.3%), 70 sophomore (27.5%), 54 juniors (21.2%), and 63 seniors (24.7%).

#### **Recruitment Strategies**

Students were identified through their current participation in an undergraduate course at Indiana University of Pennsylvania. After gaining IRB approval, the Applied Research Lab (ARL) provided a random sample of 2,000 undergraduate students' email addresses among those who are currently enrolled at IUP. Undergraduate students under the age of 18 were excluded from the population. After receiving the random sample the undergraduate students were contacted via their university email addresses. The initial email, found in Appendix A, provided students with a summary of the research being conducted as well as a direct link to the survey was made available through IUP Qualtrics. A cover letter, found in Appendix B, was attached to

the online survey, found In Appendix C, in order to provide students with more detailed information on the study and to inform them that their participation would be entirely voluntary. Out of the random sample of 2,000 undergraduate students it was expected that a total of 200 useful surveys would be returned; all surveys that were fully completed were used in the study. A follow up email, found in Appendix D, was sent to all participants who had yet to complete the survey five days after the initial email to remind them about the survey and to help increase the response rate. Since the response rate was not high enough to draw appropriate conclusions a second random sample of current IUP undergraduate students was drawn by the ARL and contacted in the same manner as the first group. These students received the same initial and follow-up emails as the first sample as well as completed the same survey.

### **Instrumentation**

The survey used in this study was developed by Koo et al. (2015). It consisted of four sections in which team identification, personal self-esteem, emotional adjustment, and social adjustment will be measured using 5-point Likert type scale ranging from strongly disagree (1) to strongly agree (5). Team identification was measured by a five-item scale adopted from Wann and Branscombe's (1993) Spectator Sport Identification Scale (SSIS). The items in this section dealt with how well students related to the IUP men's basketball team. The men's basketball team was chosen to measure a student's level of team identification due to the team's continued success, attendance rate, and popularity compared to other athletic teams on campus. Personal self-esteem, reflecting the degree to which students perceive their own overall self-worth or value, was measured by a five positive-wording item scale adopted from the Rosenberg Self-Esteem Scale (RSES). Emotional adjustment, the degree to which students are satisfied and confident with their school life, was measured by a five-item scale adopted from the Perceived

Stress Scale 10 (PSS-10). Finally, social adjustment was measured by a six-item scale adopted from the UCLA (University of California, Los Angeles) Loneliness Scale. A cover letter was attached to the online survey: this cover letter can be found in Appendix B. The instrument being used to survey students can be found in Appendix C. The survey was distributed to all potential participants via email in which they were informed about the study and provided a link to the online survey.

### **Validation of Instrument**

The instrument that used in this study was originally used in a study conducted by Koo et al. (2015). Reliability tests run through SPSS determined that the following reliabilities for each of the adapted scales: SSIS (.90), RSES (.89), PSS-10 (.92), and UCLA Loneliness Scale (.91).

### **Procedures**

Approval of this study was obtained from the Indiana University of Pennsylvania Institutional Review Board. After gaining approval, the Applied Research Lab (ARL) provided a random sample of 2,000 undergraduate students' email addresses among those who are currently enrolled at IUP. Undergraduate students under the age of 18 were excluded from the population.

After receiving the random sample, students in the sample were contacted via their university email addresses. The email, Appendix A, provided the students with information pertaining to the study, such as the purpose and significance of the study, and included a link to voluntarily complete the Team Identification, Social and Emotional Adjustment survey through IUP Qualtrics. A cover letter was attached to the online survey in order to provide students with more detailed information on the study and to inform them that their participation was entirely voluntary. Students had a four week period in which they could complete the survey. During the second week, a follow up email was sent to non-respondents. A copy of the follow up email can

be found in Appendix D. The Team Identification and Adjustment survey took participants approximately 5 minutes to complete.

In addition, due to the response rate not being high enough to draw appropriate conclusions a second random sample of current IUP undergraduate students was drawn and contacted in the same manner as the first group. These students received the same initial and follow-up emails as the first sample as well as completed the same survey.

### **Design**

A quantitative research design will be used in this study. This study utilized the same design as Koo et al. (2015) in order to analyze the variables of interest. A cross-sectional quantitative survey design was used to measure the latent constructs. Confirmatory Factor Analysis (CFA) was used to examine convergent and discriminant validity. A Structural Equation Model (SEM) was used to decompose the significant direct and indirect relationships among the latent constructs.

### **Statistical Analysis**

This study used the same statistical analysis as the study it replicated. Therefore, data collected through the survey was analyzed through a CFA and an SEM by using AMOS version 24. The CFA was utilized to examine psychometric evaluation of the measures including convergent validity and discriminant validity. The SEM scrutinized the significance of the direct and indirect relationships among the constructs; team identification, personal self-esteem, social adjustment, and emotional adjustment.

## CHAPTER IV

### RESULTS

The purpose of this study was to determine if team identification had a direct impact on personal self-esteem and if this impact on personal self-esteem could be seen as a mitigating factor to its influence on a student's social and emotional adjustment.

#### **Response Rate**

The online survey was distributed through IUP Qualtrics to two random samples of IUP undergraduate students with each sample consisting of 2,000 students. Out of the 4,000 students invited to take the survey a total of 255 students started and completed the survey. With 255 completed surveys used within the study this led to a response rate of 6.4%. This low response rate may be explained by the simple fact that the increase in the number of unsolicited emails sent to individuals may generate ill will among potential respondents (Sheehan, 2001).

#### **Means, Standard Deviations, and Correlations**

The means, standard deviations, and correlations between the latent constructs are demonstrated in Table 1. These descriptive statistics and correlation tests were run in order to get an early assessment of the data and to examine the correlations that were hypothesized to exist between the latent constructs. First, personal self-esteem ( $M = 4.15$ ) had the highest mean followed by social adjustment ( $M = 4.01$ ), emotional adjustment ( $M = 3.71$ ), and team identification ( $M = 1.86$ ). When looking at the means it is important to note that the reported mean for team identification, ( $M = 1.86$ ), indicates that most students who completed the survey responded that they either *disagreed* or *strongly disagreed* with the questions relating to how they viewed their level of identification to the IUP men's basketball team. This provides an indication that, in general, most students who completed the survey did not highly identify with

the IUP men’s basketball team. Next, the standard deviations ranged from .87 for personal self-esteem to .98 for social adjustment indicating that the majority of responses were near the mean. Lastly, an examination of the correlation matrix indicates that not all correlation coefficients were statistically significant as they were hypothesized to be. Of the six correlation coefficients, four were statistically significant at the .05 level, including: team identification and social adjustment ( $r = .141, p < .05$ ), which were found to be weakly correlated; personal self-esteem and emotional adjustment ( $r = .528, p < .05$ ), which were found to be moderately correlated; personal self-esteem and social adjustment ( $r = .528, p < .05$ ), which were found to be highly correlated; and emotional adjustments and social adjustment ( $r = .582, p < .05$ ), which were found to be highly correlated.

Table 1

*Correlation Matrix, Means, and Standard Deviations*

Factors	1	2	3	4	Mean	Std. Dev
Team Identification	1				1.86	.92
Personal Self-esteem	.098	1			4.15	.87
Emotional Adjustment	.121	.528**	1		4.01	.95
Social Adjustment	.141*	.528**	.582**	1	3.71	.98

*Notes* \*  $p < .05$ , \*\*  $p < .01$

### **Psychometric Evaluation of the Measures**

A confirmatory factor analysis (CFA) was used to examine whether the items, or indicator variables, actually measure each related latent construct as well as whether a latent construct is distinct to the other constructs (Hair et al., 2006). In general, the CFA was used to

assess the relationship between the indicator variables and the latent constructs in order to ensure, and validate, that the indicator variables accurately measured and fit the latent constructs.

Table 2 provides the psychometric evaluation measures of the indicator variables and the average variance extracted (AVE) which was used to assess the validity of the measures. In Table 2 each indicator variable's standardized factor loadings, which measure the amount of variance in the indicator variables that can be explained by the latent constructs, can be found. In general, standardized factor loadings are considered to be at an ideal level if they are above the .70 level, but are also deemed acceptable if they are above the .40 level which all standardized factor loadings in this study are. These factor loadings were then used to calculate the AVE of each latent construct in order to test their convergent and discriminant validity. The estimated AVE were greater than a .50 cutoff threshold ranging from .715 to .763 for all latent constructs, due to this, the measures were considered to possess acceptable levels of convergent validity. Additionally, evidence of discriminant validity was determined by comparing the AVE with the square of the correlation between each latent construct and the other constructs (Hair et al., 2006). The calculated AVE for each construct was greater than the squared phi correlations ( $\phi^2$ ), which are reported in Table 2 as the range of different values for each latent construct and their correlations, in the measurement model, the measures were found to have acceptable levels of discriminant validity.

Table 2

*Psychometric Evaluation of the Measures*

Latent Construct	Items	AVE	$\phi^2$	1	2	3	4
Team Identification	TI1	.717	.092-.144	.918			
	TI2			.936			
	TI3			.730			
	TI4			.593			
	TI5			.804			
Personal Self-esteem	PSE1	.763	.092-.654		.862		
	PSE2				.835		
	PSE3				.874		
Emotional Adjustment	EA1	.715	.144-.654			.891	
	EA2					.907	
	EA3					.807	
	EA4					.808	
	EA5					.833	
Social Adjustment	SA1	.752	.119-.633				.866
	SA2						.825
	SA3						.883
	SA4						.810

Next, after determining the validity of the psychometric evaluations of the measures, tests were run in order to assess the goodness of fit between the data and the SEM model. While a Chi-Squared test is usually ran in order to assess goodness of fit, the assessment of normality showed that the variable TI4, *I display the IUP men's basketball team name or insignia at my place of work, where I live, or on my clothing*, was not normal due to excess kurtosis. This indicated that a Bollen-Stine Bootstrap would be more appropriate than a Chi-Squared test for evaluating the goodness of fit for the model (Bollen & Stine, 1992). The Bollen-Stine bootstrap ( $\chi^2(113) = 237.919, p = .004, p < .05$ ) indicated that the data was not a good fit for the model, due to the p-value being less than the significance level of .05, which suggests that the model should be rejected. While the significant p-value implies that the model does not fit, the values for the Standardized Root Mean Squared Residual (SRMR) = .040, the Root Mean Square Error of Approximation (RMSEA) = .067, and the Comparative Fit Index (CFI) = .961 are within acceptable ranges and are generally more appropriate for evaluating the goodness of fit. Therefore, the fit indices for the measurement model met the recommended values specifying a good model fit to the data (Browne & Cudeck, 1993; Hu & Bentler, 1999; Steiger, 2007).

### **Decomposition of the SEM**

Despite the Bollen-Stine Bootstrap indicating a poor fit for the data, ( $\chi^2(113) = 237.919, p = .004, p < .05$ ), other model indices derived from the SEM revealed a good fit to the data; SRMR = .040, RMSEA = .067, and CFI = .961. Since these indices indicated a good fit for the data it was then acceptable to go forward with the SEM model to scrutinize the significance of the direct and indirect relationships among the latent constructs.

The results from the SEM analysis can be found in Table 3 which provides the estimated standardized parameters for the latent constructs and their predictors. These standardized

parameters, which estimate the direct and indirect effects of the predictors, were further utilized in the study to calculate the estimated amount of variance that each predictor had on a latent construct. It is also important to note that Table 3 provides the  $R^2$  values for each dependent variable, or outcome as labeled on the table, which provides an estimate of the percent of variance in the dependent variable that is explainable by its predictors.

While each predictor has a calculated standardized parameter, not all of the estimated parameters, shown in Table 3, were significant. First, decomposition of significant relationships derived from the SEM revealed that students' higher levels of team identification were not associated with higher levels of self-esteem ( $t = 1.403, p > .05$ ).

Second, students' team identification was not associated to social adjustment in higher education ( $t = 1.141, p > .05$ ), however personal self-esteem had a direct positive impact on social adjustment ( $t = 8.599, p < .05$ ). Therefore, about 33% of the variance in social adjustment can be explained by the direct effects of personal self-esteem.

Finally, personal self-esteem ( $t = 6.226, p < .05$ ) and social adjustment ( $t = 5.619, p < .05$ ) directly led to students' emotional adjustment. These direct effects also triggered the mediating roles of personal self-esteem and social adjustment. Approximately, 18% and 15% of the variance in emotional adjustment can be accounted to social adjustment and personal self-esteem respectively.

Table 3

*Decomposition of Effects with Standardized Values*

Outcome	Predictor	Effects		
		<u>Direct</u>	<u>Indirect</u>	<u>Total</u>
Personal Self-Esteem	Team Identification	.097		.097
$R^2 = .009$				
Emotional Adjustment	Team Identification		.283	.283
	Personal Self-Esteem	.432		.432
	Social Adjustment	.382		.382
$R^2 = .524$				
Social Adjustment	Team Identification	.067	.055	.122
	Personal Self-Esteem	.575		.575

Lastly, Figure 1 shows the SEM model in its entirety. The figure provides a visual representation of the latent constructs (team identification, personal self-esteem, emotional adjustment, and social adjustment) and their indicator's standardized loadings which are shown in Table 2. In addition, the numbers over the indicators represent the variance explained by the factor. Lastly, the  $R^2$  values for the latent constructs can be found above them and the standardized parameter estimates, shown in Table 3, can be seen over the arrows leading from one construct to the next. Finally, Figure 2 provides a simplified version of the SEM in Figure 1 which present the model with standardized parameter estimates for the structure components.

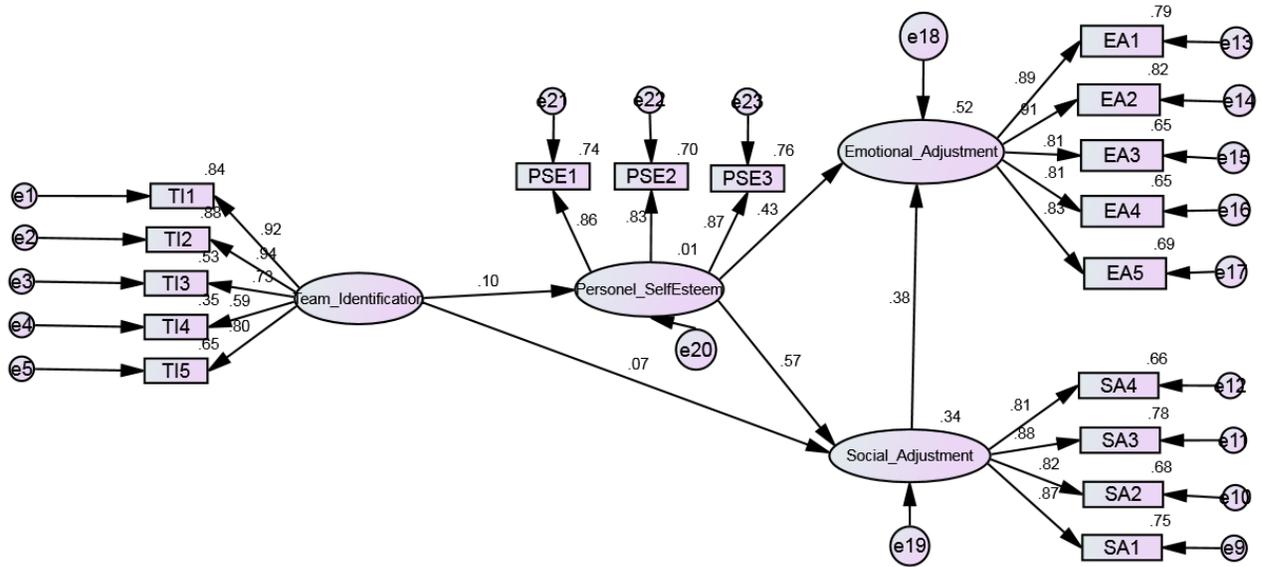


Figure 1. The SEM model labeled with latent construct item variances.

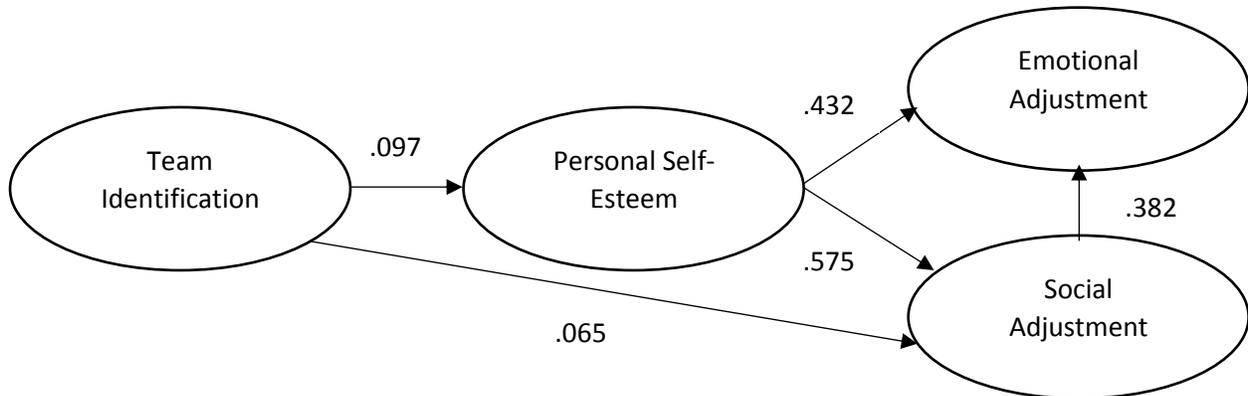


Figure 2. The final SEM model labeled with the significant standardized effects.

## CHAPTER V

### DISCUSSION

#### **Summary of the Study**

Successful adaptation to college life is crucial for a student's academic success as well as retention. Previous research has indicated that a student's successful adaptation to college life can be predicted by social adjustment (Gerdes & Mallinckrodt, 1994; Awang et al., 2014; Freidlander et al. 2007) and a strong sense of community (Pittman & Richmond, 2007, 2008). In order for universities to assist students in their adaptation to college life it is vital that they create an environment that fosters a sense of community and allows students to develop social connections.

Intercollegiate athletics have often been associated with the enhancement of campus community for their universities as they are often believed to serve as promoters of social cohesion by providing a venue for students, faculty, and alumni to interact with one another. Toma (1998) supported this notion in his study which found that intercollegiate athletics, particularly spectator sports, had a significant role in developing a sense of community on campus. Previous research has also linked intercollegiate athletics with enhancement to student social capital, sense of university belonging, campus involvement, and psychological well-being (Branscombe & Wann, 1991; Clopton, 2007, 2008; Clopton & Finch; 2010; Katz & Heere 2016; Koo et al., 2015; Sung et al., 2015; & Wann, 2006).

In general, intercollegiate athletics are believed to provide an opportunity for students to interact with others on campus. As students attend sporting events and become fans of their respective university teams they will begin to develop a strong sense of attachment and will be more likely to identify with other fans who associate with the team, thereby becoming a part of a

social group. This attachment to a team is known as team identification, which is the extent to which a fan views the team as an extension of themselves (Wann et al., 2001). Research has shown that fans who highly identify with a team are likely to experience the benefits of increased social connections as well as enhancements to their psychological well-being (Branscombe & Wann, 1991; Wann, 2006; Wann, 2000).

The purpose of this study was to add to previous research that has focused on the effects that team identification with an intercollegiate athletic team has on the general student body and college communities by examining the influence of team identification on a students' social and emotional adjustment to college at a Division II university, which is a setting that had yet to explored.

### **Hypothesis Results**

Prior to conducting this study three hypotheses were formed on the research questions in the study. These three hypotheses focused on the effects of team identification on personal self-esteem, the effects of personal self-esteem on social and emotional adjustment, and the effects of team identification on social adjustment.

#### **Effects of Team Identification on Personal Self-Esteem**

The first hypothesis of this study predicted that a student's level of team identification with the IUP men's basketball team would have a positive and direct effect on their self-reported level of personal self-esteem. The findings from the decomposition of the SEM indicated that there was no significant causal relationship between team identification and personal self-esteem ( $t = 1.403, p > .05$ ). Previous research has indicated that a student's level of personal self-esteem, through self-evaluation, can be positively affected when they have a strong sense of belonging to a university (Pittman & Richmond, 2007, 2008). However, these findings indicate that students

making a positive attachment to a particular intercollegiate athletic team, in this the men's basketball, does not enhance their personal self-esteem in their collegiate life. Findings in this study goes against previous research that has shown that a strong sense of attachment to a team has positive and direct effects on an individual's self-esteem (Wann, 2006, Koo et al. 2015, & Branscombe & Wann 1991). While this finding differs from the majority of research on the relationship between team identification and psychological well-being the result may be explained due to the location of the study. Previous research on team identification has primarily focused on Division I intercollegiate athletic programs while this study drew a sample from a university that belongs to Division II in the NCAA. While both Division I and Division II intercollegiate athletics both require serious investments from their institutions Division I are far larger in scope and popularity compared to Division II. As Toma (1998) noted, intercollegiate athletics are far different in scope when comparing them at smaller universities to the marquee programs at flagship universities. While intercollegiate athletics can be meaningful to campus communities at smaller universities they are rarely the window to understanding the campus that the marquee sports are at the flagship universities (i.e. Ohio State University, University of Alabama, etc.). In this study, the results seem to mirror the notion presented by Toma (1998) that intercollegiate athletic program at smaller universities, in this case Division II, do not carry the same weight or have the same impact as those belonging to Division I programs do to the difference in scope. Therefore, these results suggest that students at Division II institutions, such as Indiana University of Pennsylvania, may not identify highly with their teams, such as students at Division I universities, due to the scope and reach being far lower than significant programs at the Division I level.

### **Effects of Personal Self-Esteem on Social/Emotional Adjustment**

The second hypothesis of this study predicted that a student's self-reported level of personal self-esteem would have a direct and positive effect on their social and emotional adjustment to college. Findings indicated that personal self-esteem was positively associated with social adjustment ( $t = 8.599, p < .05$ ) and emotional adjustment ( $t = 6.226, p < .05$ ). The positive relationship between personal self-esteem and social adjustment has been supported in previous research. One example of this can be found in Credé and Niehorster (2012) who found that adjustment to college is determined by personal self-esteem, specifically students who had positive views of themselves were more socially competent. Personal self-esteem was also found to have a positive impact on emotional adjustment which has also been supported in previous research. Simek (2013) found that personal self-esteem was significantly related to positive and negative aspects of an individual's well-being. In addition, these findings support the work of Koo et al. (2015) who found similar results through the use of the same model. While personal self-esteem may not be associated with team identification, according to this study, it is important to understand that self-esteem plays a significant role in assisting students with their adaptation to college life.

### **Effects of Team Identification on Social Adjustment**

Finally, the third hypothesis of this study predicted that a student's level of team identification with the IUP men's basketball team would have a direct impact on their social adjustment to college. Findings from the study suggest that team identification toward a particular intercollegiate athletic team was not associated with social adjustment ( $t = 1.141, p > .05$ ). Wann (2006) proposed that team identification facilitates social connections with in-group members which can result in improved well-being. This notion is supported by social identity

theory which states that a sense of belonging to a certain group could generate intangible benefits of social group membership (Tajfel, 1981). Previous research has suggested that highly identifying with an intercollegiate athletic team can have an impact on their social interactions with each other. For example, Katz and Heere (2016) measured the effects of the creation of a new college football team on the degree to which participants identified with the university and found that identifying with a sport team resulted in increased involvement with the university and helped them to feel a part of the larger campus community. However, Warner et al. (2011) similarly assessed the impact of a new college football team on a college campus by measuring its impact on a student's sense of community. Their findings suggested that the introduction of the football team did not foster a greater sense of community for students, leading them to conclude that simply consuming sports as a fan did not lead to campus integration. Findings from this study are in line with those of Warner et al. (2011) suggesting that team identification does not lead to positive effects on social adjustment. One explanation for this result may be that the majority of participants reported fairly low levels of identification to the IUP men's basketball team. These low levels of identification indicate that students are not associating with the team which means that they may not be using intercollegiate athletics as a way to develop social connections on campus. This is supported by Warner et al. (2011) who in their study concluded that passive sport spectating was not enough to enhance student involvement and that in order for students to feel invested they needed to be more engaged in the sport spectating experience. Wann (2006) also noted that simply being a fan does not lead to benefits of well-being. Therefore, it is likely that students at Indiana University of Pennsylvania may be reporting low levels of team identification because they are not feeling fully engaged with the sport spectating experience. These results suggest that administrators at universities should do more to enhance

the sport spectating experience for students to help them feel more engaged and provide an environment where students can develop positive social connections.

### **Conclusion**

Previous research has linked a student's level of team identification with enhancement to their psychological well-being, their sense of community, and increased social connections (Branscombe & Wann, 1991; Clopton, 2007, 2008; Katz & Heere 2016; Koo et al., 2015; Sung et al., 2015; & Wann, 2006). Yet, this study suggests that team identification does not have an impact on a student's personal self-esteem or school adjustment. The results from this study most align with those from Warner et al. (2011) who found that the introduction of a new football team on campus did not foster greater sense of community for students. Students in this study reported that they did not highly identify with the IUP men's basketball team which indicates that these students may not look to intercollegiate athletics as a way of developing new social connections. These low levels of team identification can most likely be explained from the fact that Division II intercollegiate athletics simply do not have the same scope or popularity as intercollegiate athletic programs at Division I institutions which may make it harder for Division II intercollegiate athletics to reach students and garner their interest leading to students failing to identify with their university teams. In addition to this, it may also be likely that the spectator experience at Indiana University of Pennsylvania may not provide an environment where students feel engaged and a part of something bigger than themselves. Research has suggested that simply being a fan of a team, or passive sport spectating, is simply not enough to have positive effects on an individual's psychological well-being, their development of social connections, or in the development of their sense of community (Wann, 2006; Warner et al., 2011). It seems likely that students from the sample were likely involved in passive sport

spectating, if anything at all, which helps to explain the low levels of team identification and the lack of its effects on student's personal self-esteem, social adjustment, and emotional adjustment.

From a practical standpoint these results suggest that intercollegiate athletics may not serve as a tool that university administrators can utilize to help students in their adjustment to college life. If administrators are looking to intercollegiate athletics as a venue to assist in student adjustment and retention this study suggests that they look for ways to enhance student engagement at intercollegiate athletic events in order to avoid creating an environment of passive sport spectating. Enhancing student engagement with intercollegiate athletics may involve pep rallies, tailgating, postgame parties, and a variety of other fan engagement experiences. By creating an environment where students are more involved administrators may be able to use intercollegiate athletics as a way to enhance their overall community.

In conclusion, the results of this study suggest that Division II institutions intercollegiate athletics may not be as important to the university community as those at Division I institutions. This study provides useful insight to college administrators at Division II institutes about the impact that intercollegiate athletics have on their campuses and how they could adjust them to benefit their campuses. Future research should continue to investigate the impact of team identification on other universities varying in athletic classification, student body makeup, and location in order to get a better sense of the role that intercollegiate athletics have on their campuses.

### **Recommendations for Future Studies**

The findings of this study indicate that team identification is not associated with personal self-esteem or school adjustment, however this result cannot be generalized to every university due to varying differences in region, size, student makeup, and athletic classification. This study

was limited to investigating one Division II university in western Pennsylvania which can hardly be expected to account for the numerous differences that are present in student body populations and university cultures across a wide range of institutions. Therefore, future studies should aim to expand this study into other university settings that differ in athletic classification, region, and student body makeup.

Another recommendation for future studies is to investigate how a student's level of team identification may differ between different athletic teams on university campuses. In this study student's level of team identification was assessed solely through the men's basketball team. It is possible that students could have varying levels of identification depending on the sport. Thus, future research should focus on accounting for how students identify with specific sports rather than one single sport due to the possibility of varying interests and connections with teams.

A final recommendation for future studies would be to use a longitudinal design. A longitudinal design is suggested because the majority of research on team identification, including this one, have used cross-sectional research methods which provide insight on the directionality and importance of correlations but they fail to provide a valid indication of true prediction (Miles & Shelvin, 2001). Therefore, future studies should look to use longitudinal designs, such as Katz and Heere (2016), in order to get a better understanding of the extent to which team identification may drive a student's school adjustment.

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## Appendix A

### Initial Student Email

Dear Student,

My name is Evan Davis and I am a current graduate student here at Indiana University of Pennsylvania who is conducting research for a Master's thesis. I am writing to request your participation in a study concerning team identification and its effects on a student's social and emotional adjustment to college. In order to participate in the study you need to complete a short survey that will take approximately 5 minutes to complete. If you wish to participate in the study, please click the link below. Following the link will take you to the survey where you will find an attached cover letter that will provide you with more information on the study.

Participation in the study is completely voluntary. You may refuse to participate in the study or you may withdraw from the study by exiting the survey at any time with no penalty. Data will be collected through IUP Qualtrics and will be used for a Master's thesis. You will not have to put your name on the survey and your answers will remain anonymous. In addition, all information will only be reviewed by the primary investigator and co-investigator of the study. Your completion of survey will provide valuable data on the effects on team identification on school adjustment.

If you have any questions please feel free to contact the primary investigator or co-investigator of the study.

This project has been approved by the Indiana University of Pennsylvania Institutional Review Board for the protection of human subjects (724.357.7730).

If you are interested in participating in this study, please click the following link. Your completion of the survey implies your consent. : \_\_\_\_\_

Primary investigator:

Evan Davis  
Graduate Student, Sport Management  
Indiana University of Pennsylvania  
Phone: 724-980-4631  
Email: dkrt@iup.edu

Co-Investigator:

Dr. Richard Hsiao  
Professor  
Indiana University of Pennsylvania  
Phone: 724-357-0123  
Email: hsiao@iup.edu

Thank you for your time and participation.

Sincerely,

Evan Davis

## Appendix B

### Survey Cover Letter

**Project Title:** Effects of Team Identification on Social and Emotional Adjustment at a Division II University

**Please read the following information:**

You are invited to participate in a research study of how team identification with a college sports team affects a student's social and emotional adjustment to college life. The purpose of this study is to examine the direct and indirect effects of team identification on personal self-esteem, social adjustment, and emotional adjustment. You have been selected to participate in this study because of your current undergraduate standing at Indiana University of Pennsylvania.

If you decide to participate, please proceed to complete the following survey. The survey includes questions about your sense of belonging to the team, your self-esteem, your satisfaction and confidence within your school life, and feelings of loneliness. The survey will take approximately 5 minutes to complete. You **must be at least 18 years of age** in order to participate in the study. Your completion of the survey will be considered your consent to participate in the study.

There is a risk that you may find some of the questions about your self-esteem and your social adjustment to be sensitive. If you feel you need to speak with a professional counselor about any of your responses to these sensitive questions you may contact The Counseling Center at 724-357-2621 for help. Also, there are no direct benefits that you will receive from participating in this study. However, your participation will provide information about the role that college athletics plays in creating an environment that enhances student social and emotional adjustment. This information can then be used to determine ways in which college athletics can be used to improve student life and help students make an easier transition into college life.

Your survey answers will be collected through IUP Qualtrics, an online survey program. You will not have to put your name on the survey and your answers will remain anonymous. No one will be able to identify you or your answers and no one will know if you participated in this survey or not. Your participation in this survey is completely voluntary. You may skip any question you do not wish to answer. Also, you may refuse to participate in the study or you may withdraw from the study by exiting the survey at any time with no penalty.

If you have any questions at any time, please feel free to contact the primary investigator or co-investigator.

This project has been approved by the Indiana University of Pennsylvania Institutional Review Board for the protection of human subjects (724.357.7730).

Primary Investigator:

Evan Davis  
Graduate Assistant, Sport Management  
Indiana University of Pennsylvania  
Phone: 724-980-4631  
Email: dkrt@iup.edu

Co-Investigator:

Dr. Richard Hsiao  
Professor  
Indiana University of Pennsylvania  
Phone: 724-357-0123  
Email: hsiao@iup.edu

Thank you for your time and support in this research study. If you are willing to participate please click the link below. Your completion of the survey implies your consent:

Link:

## Appendix C

### Team Identification, Social, and Emotional Adjustment Survey

#### **Team Identification**

1. My friends strongly see me as a fan of (the team name)  
Strongly Disagree 1 2 3 4 5 Strongly Agree
2. I strongly see myself as a fan of (the team name)  
Strongly Disagree 1 2 3 4 5 Strongly Agree
3. It is important to be a fan of (the team name)  
Strongly Disagree 1 2 3 4 5 Strongly Agree
4. I display the (team)'s name or insignia at my place of work, where I live, or on my clothing  
Strongly Disagree 1 2 3 4 5 Strongly Agree
5. I regularly follow (the team name)  
Strongly Disagree 1 2 3 4 5 Strongly Agree

#### **Personal Self-Esteem**

1. I feel that I am a person of worth, at least on equal basis with others  
Strongly Disagree 1 2 3 4 5 Strongly Agree
2. I am able to do things as well as most other people  
Strongly Disagree 1 2 3 4 5 Strongly Agree
3. I feel that I have a number of good qualities  
Strongly Disagree 1 2 3 4 5 Strongly Agree

#### **Social Adjustment**

1. I feel part of a group of friends  
Strongly Disagree 1 2 3 4 5 Strongly Agree
2. There are people I can turn to  
Strongly Disagree 1 2 3 4 5 Strongly Agree
3. I am able to do things socially with my friends (e.g., visiting, entertaining, and going out together)  
Strongly Disagree 1 2 3 4 5 Strongly Agree

4. I have a lot in common with the people around me  
Strongly Disagree 1 2 3 4 5 Strongly Agree

### **Emotional Adjustment**

1. I feel confident about handling my school life  
Strongly Disagree 1 2 3 4 5 Strongly Agree
2. I feel that things are going my way at school  
Strongly Disagree 1 2 3 4 5 Strongly Agree
3. I deal successfully with irritating life hassles at school  
Strongly Disagree 1 2 3 4 5 Strongly Agree
4. I am able to control irritations in my school life  
Strongly Disagree 1 2 3 4 5 Strongly Agree
5. I am happy with my school life  
Strongly Disagree 1 2 3 4 5 Strongly Agree

### **Demographics**

1. What is your gender?
- a. Male
  - b. Female
2. What is your classification in college?
- a. Freshman
  - b. Sophomore
  - c. Junior
  - d. Senior
3. Which of these fields best describe your major?
- a. Agriculture
  - b. Biology (biology, biochemistry, botany, zoology)
  - c. Business (accounting, business administration, marketing, management, etc.)
  - d. Communication (speech, journalism, television/radio, etc.)
  - e. Computer and information Sciences
  - f. Education
  - g. Engineering
  - h. Ethnic, cultural studies, and area studies
  - i. Foreign languages and literature (French, Spanish, etc.)
  - j. Health-related fields (nursing, physical therapy, health technology, etc.)
  - k. History
  - l. Humanities (English, literature, philosophy, religion, etc.)

- m. Liberal/general studies
- n. Mathematics
- o. Recreation, leisure studies, sports management
- p. Physical sciences (physics, chemistry, astronomy, earth science, etc.)
- q. Pre-professional (pre-dental, pre-medical, pre-veterinary)
- r. Public Administration (city management, law enforcement, etc.)
- s. Social sciences (anthropology, economics, political science, psychology, sociology, etc.)
- t. Visual and performing arts (art, music, theater, etc.)
- u. Undecided
- v. Other

## Appendix D

### Follow Up Email

Dear student,

This is a reminder that you still have time to participate in the study concerning team identification and its effects on social and emotional adjustment to college. In order to participate all you need to do is complete a short survey that will take approximately 5 minutes to complete.

If you have yet to complete the survey, and you wish to participate in the study, please click the link below. Participation in the study is completely voluntary. You may refuse to participate in the study or you may withdraw from the study by exiting the survey at any time with no penalty. Data will be collected through IUP Qualtrics and will be used for a Master's thesis. You will not have to put your name on the survey and your answers will remain anonymous. In addition, all information will only be reviewed by the primary investigator and co-investigator of the study. Your completion of survey will provide valuable data on the effects on team identification on school adjustment.

If you have any questions please feel free to contact the primary investigator or co-investigator of the study. This study will be approved by the Indiana University of Pennsylvania Institutional Review Board.

If you are interested in participating in this study, please click the following link: \_\_\_\_\_

Primary investigator:

Evan Davis  
Graduate Student, Sport Management  
Indiana University of Pennsylvania  
Phone: 724-980-4631  
Email: dkrt@iup.edu

Co-Investigator:

Dr. Richard Hsiao  
Professor  
Indiana University of Pennsylvania  
Phone: 724-357-0123  
Email: hsiao@iup.edu

Thank you for your time and participation.

Sincerely,

Evan Davis