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# Exploring the Impact of Positive Peer Views of Girls on School Engagement in Middle School Girls

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EXPLORING THE IMPACT OF POSITIVE PEER VIEWS OF GIRLS ON SCHOOL  
ENGAGEMENT IN MIDDLE SCHOOL GIRLS

by

Christine E. Hansen

A thesis submitted in partial fulfillment  
of the requirements for the degree

of

Educational Specialist

in

Psychology

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UTAH STATE UNIVERSITY  
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2018

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## ABSTRACT

Exploring the Impact of Positive Peer Views of Girls on School Engagement in  
Middle School

by

Christine E. Hansen, Educational Specialist

Utah State University, 2018

Major Professor: Gretchen Gimpel Peacock, Ph.D.  
Department: Psychology

The purpose of this study was to advance research on the occurrence of gender-based microaggressions and microaffirmations in middle school. The specific goals of the study were: to assess if microaggressions and microaffirmations could be assessed with consistency in middle school girls, to examine the relationship between pubertal timing and gender-based microaggressions and microaffirmations, to measure differences in girls' perceptions of microaggressions and microaffirmations delivered by their male peers compared to their female peers, and to determine if microaffirmations moderate the effect of microaggressions on school engagement.

One hundred and twenty-one middle or junior high participants, comprised primarily of white females, were recruited through Qualtrics, a research sampling service, to complete online surveys. Microaggressions and microaffirmations were measured using the Students Affirming Girls in Middle School scale (SAG-MS), a measure created for this study.

Pubertal timing was measured through self-report of the age at which participants first noticed the physical and emotional changes of puberty, and school engagement was measured using the School Engagement Scale (SES).

The internal consistency of the SAG-MS measure was within an acceptable range ( $\alpha = .90$ ). Spearman's correlations showed nonsignificant correlations between total microaggressions and pubertal age ( $r = -.030, p = .754$ ) and between microaffirmations and pubertal age ( $r = -.076, p = .423$ ). Paired  $t$  tests showed a higher frequency of microaggressions from boys than girls,  $t(120) = 6.686, p < .0005$ ; and a higher frequency of microaffirmations from girls than boys,  $t(120) = -5.020, p < .0005$ . A moderation regression analysis showed that school engagement tended to decrease as microaggressions increased, but when levels of microaffirmations were high this decrease did not occur.

Results suggest that gender-based microaggressions are occurring in middle school and can lead to decreases in school engagement. However, gender-based microaffirmations delivered by peers have the potential to protect middle school girls from experiencing this drop in engagement.

(65 pages)

## PUBLIC ABSTRACT

Exploring the Impact of Positive Peer Views of Girls on School Engagement in  
Middle School

Christine E. Hansen

This study focused on the types of messages female middle school students receive about their gender from their peers. Specifically, it looked at microaggressions, which are sexist messages from peers, and microaffirmations, which are positive and affirming messages from peers. There were four goals of this study. First, to check if the Students Affirming Girls in Middle School scale (SAG-MS), a scale created for this study, could consistently measure microaggressions and microaffirmations. Second, to look at the relationship between when girls experience puberty and microaggressions and microaffirmations. Third, to measure any differences in the number of microaggressions and microaffirmations girls receive from boys versus other girls. And fourth, to determine if microaffirmations can protect girls' engagement in school from the negative effects of microaggressions. The participants of this study were 121 female middle or junior high school students who were recruited through Qualtrics, a research sampling service, to complete online surveys. Results of the study showed that the SAG-MS has an acceptable level of internal consistency, meaning that participants responded to items on the scale in a similar manner. Results also showed that when girls experience puberty does not have a significant relationship with how many microaggressions they receive or how many microaffirmations they receive. Middle school girls were also found to receive more

microaggressions from boys than other girls and more microaffirmations from other girls than boys. Finally, results showed that girls' engagement in school went down when they experienced more microaggressions, but if girls' received many microaffirmations this drop did not occur. These findings suggest that microaggressions are occurring in middle school and that they can lead to decreases in girls' engagement in school. However, microaffirmations given by peers have the potential to protect middle school girls from experiencing this drop in engagement.

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Special thanks also go to my husband and my parents, who encouraged and emotionally supported me throughout my graduate degree. Finally, with gratitude and love I recognize my son, Gabriel, who inspires me to never give up.

Christine E. Hansen



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# **CHAPTER I**

## **INTRODUCTION**

The middle school years have long been considered a time of significant identity development. In the United States, students typically attend middle school from 6<sup>th</sup> to 8<sup>th</sup> grade. At this age, the importance of peers increases, and students begin to place greater value on the messages they receive from their peers (Connolly, Furman, & Konarski, 2000; Darling, Dowdy, Van Horn, & Caldwell, 1999). Some messages from peers, such as microaggressions, can hinder identity formation and increase stress (McIntosh, 1988). Social stress combined with other stressors that occur during middle school, including the biological onset of puberty, can negatively impact students' academic engagement and performance in school (Schwartz, Stiefel, Rubenstein, & Zabel, 2011). However, support from peers can improve self-esteem, emotional well-being, and attitudes about school (Demaray, Malecki, Davidson, Hodgson, & Rebus, 2005).

During middle school, students experience the need to develop a positive sense of self and belonging within a social group (Scarf et al., 2016). One's identity is shaped by interactions with peers, family, and school environments, but all identities are not equally honored or valued by society (McIntosh, 1988). Identifying as a female, for example, may lead to experiences of discrimination due to sexism and gender discrimination. Much of the discrimination that is present in our society occurs in the form of microaggressions, which are small unconscious acts of bias (McIntosh, 1988). When girls' peers engage in microaggressive acts that demean or discriminate against women, it can damage their sense of identity and decrease their engagement in school (Capodilupo

et al., 2010; Clark, Mercer, Zeigler-Hill, & Dufrene, 2012). These gendered microaggressions occur in many different forms. Themes of microaggressions reported by adolescent girls include being treated as a second-class citizen, assumptions of inferiority, and assumptions of traditional gender role conformity (Brown, Alabi, Huynh, & Masten, 2011; Grossman & Porche, 2014).

The experience of these gender-based microaggressions during middle school may be influenced by the timing of puberty. Puberty is a state of both physical and emotional change that occurs as a girl changes from a child to an adult woman. When girls experience puberty significantly earlier than their peers they become more vulnerable to social stress and peer evaluation (Reynolds & Juvonen, 2012). If proper support is not provided the stress of puberty may damage students' self-confidence and sense of identity (Stojković, 2013).

Researchers have proposed that positive affirmation of a female gender identity from peers may be a vital way to contribute to the formation of a positive sense of self and of one's abilities in adolescent girls (Shnabel, Purdie-Vaughns, Cook, Garcia, & Cohen, 2013). Affirmation is the act of expressing value of a particular group and making efforts (e.g., creating inclusive environments) to help members of that group succeed (Rowe, 2008). The presence of peer affirmations in middle school can replace unconscious bias and counteract microaggressions. Supportive and affirming peer groups can also act as a buffer against the stresses of middle school. For example, adolescent peer groups may support the academic engagement of female students by listening to their opinions as much as they listen to the opinions of male students during group work.

Positive peer interactions contribute to a positive sense of self and decrease school maladjustment (Demaray et al., 2005).

To date, there has been little research conducted on the academic engagement of female middle school students in the face of gender-based microaggressions and microaffirmations. The aim of this study is to answer the following research questions.

RQ1: Can gender based microaggressions and microaffirmations be assessed with consistency in middle school girls?

It is hypothesized that a measure created for this study will measure gender-based microaggressions and microaffirmations experienced by middle school girls with an acceptable level of internal consistency.

RQ2: What is the relationship between pubertal timing and gender based microaggressions and microaffirmations?

It is hypothesized that early pubertal timing will be positively correlated with peer microaggressions and negatively correlated with peer microaffirmations.

RQ3: Are there differences in girls' perceptions of microaggressions and microaffirmations delivered by girls vs. boys?

It is hypothesized that girls will perceive experiencing more microaggressions from their male peers and more microaffirmations from their female peers.

RQ4: Do microaffirmations moderate the effect of microaggressions on school engagement?

It is hypothesized that microaffirmations will reduce the negative impact of gender microaggression on academic engagement.

## **CHAPTER II**

### **LITERATURE REVIEW**

Prior studies demonstrate that students' academic motivation and engagement decreases during puberty without positive social supports, including support from their peers (Wigfield, Byrnes, & Eccles 2006). Coping with body changes, while also forming a positive self-identity, has the potential to drain a student's energy and attention towards the increased academic requirements of middle school, especially without affirming experiences. Girls are more at risk than boys for decreased academic performance due to encounters with social messages of sexism and gender inequality (Nosek et al., 2009). Research shows that sexist attitudes, beliefs, and behaviors are learned at an early age, therefore peers become a potential source of both intentional and unintentional sexist messages for middle school students whose identities are strongly influenced by peer opinions (Darling et al., 1999; Leinbach, Hort, & Fagot, 1997). The following sections will summarize the literature on gender microaggressions and microaffirmations and the relationship of these factors with pubertal timing and academic engagement for self-identified female gender students in middle school.

#### **Gender Microaggressions During Middle School**

In our society students learn implicit biases, including gender biases, from a young age. These biases take the form of unconscious attitudes, stereotypes, and unintentional actions that are used to judge females. These judgments become harmful when negative and untrue beliefs lead to social behaviors and environmental messages that



promote the idea that females are inferior to males. Biases lead to microaggressions, which are subtle forms of verbal, behavioral, or environmental insults that demean or invalidate members of a marginalized group (Capodilupo et al., 2010). Subtle microaggressions carry negative themes that continue to teach negative beliefs which lead to the devaluation and exclusion of members of certain minority groups. Microaggression research began with studies on discrimination against racial minorities, but has since been expanded to other marginalized groups, including women.

Although gender microaggressions in middle school have not been thoroughly studied, there is evidence that microaggressions occur and that they impact the wellbeing of school-aged students. According to Brown et al. (2011), sixth-grade girls are more likely to report experiencing unfair differential treatment because of their gender than sixth grade boys. Girls at this age are also more likely to be aware of gender biases than their male counterparts, although both males and females identified specific types or instances of gender-based discriminatory acts observed in their schools (Brown et al., 2011). Female participants most often cited assumptions that girls are inferior athletically and male participants tended to report that teachers were more trusting and less strict with female students. In a similar study by Grossman and Porche (2014), female and racial minority high school students participated in semistructured interviews regarding supports and barriers to their success in science and math. Sixty-seven percent of the female participants reported discriminatory assumptions concerning their gender including stereotypical beliefs that women are not as capable as men, that women should only work in the home, and that women do not match the traditional image of scientists.

Several researchers have proposed specific microaggressive themes that females experience. These themes have been supported by qualitative and quantitative studies using adult samples, and they include: sexual objectification, being treated like a second class citizen, assumptions of inferiority, denial of the reality of sexism, assumptions of traditional gender roles, the use of sexist language, denial of individual sexism, and environmental microaggressions (Capodilupo et al., 2010). Although similar themes presented in Table 1 are likely to apply to adolescents' experiences, three of the themes, second-class citizen, assumptions of inferiority, and assumptions of traditional roles, were specifically reported by middle school students (Grossman & Porche, 2014).

Table 1

*Microaggression Themes, Definitions, and Examples*

Type	Definition	Example
Sexual objectification	Being treated as an instrument of lust and sexual pleasure.	A boy brushes his hand across a girl's leg as she walks by in the hallway.
Second-class citizen	Instances when men are favored over women.	During a group project, students ignore a girl's ideas to listen to what a boy has to say instead.
Assumptions of inferiority	Women are viewed as weaker and less intelligent than men.	A girl is discouraged from taking honors classes by a friend who says those classes are too hard for a girl.
Denial of the reality of sexism	Not believing that sexism still exists or down-playing a woman's experiences of discrimination.	After a girl complains that a teacher calls on boys more than girls, one of her classmates tells her that she is just imagining it.
Assumptions of traditional gender roles	Assuming that women should conform to stereotypical female roles and activities.	A girls is told that she should take a cooking class so she will know how to care for her future family.
Use of sexist language	Using demeaning or insulting language to refer to a woman.	Calling a female classmate "honey" or "baby" in a belittling way.
Denial of individual sexism	Refusing to acknowledge one's own sexist language or behavior.	A boy says that he thinks boys and girls can both be good at sports, but during P.E. he never asks girls to be on his team.
Environmental microaggressions	Subtle sexist messages present in one's surroundings.	Sexualized pictures of women hanging in lockers or having no female student body officers.

Assumptions reflecting these themes, as well as other forms of microaggressions, can have a detrimental impact on the mental health, identity development, and academic performance of students. Sue (2010) suggested that microaggressive acts, because they are a very subtle form of discrimination, require those targeted to use a great deal of their cognitive resources in an effort to determine if they have truly been discriminated against. When cognitive resources are taken up by the task of evaluating possible discrimination, these resources cannot be used for other tasks, including academics. In addition, recipients of inferior assumptions will sometimes internalize the assumptions which causes feelings of inferiority to increase and predicts higher levels of performance anxiety and consequently poorer performance. Allen, Scott, and Lewis (2013) further suggested that microaggressive acts hurt the well-being of students by hindering positive self-identity development and may lead racial minorities to disconnect from their racial identity to avoid being stereotyped. This can be detrimental because having a strong racial identity often allows students who are marginalized to advocate for themselves and others (Allen et al., 2013). In essence, microaggressions disempower those who experience them.

### **Microaffirmations to Replace or Refute Microaggressions**

Because microaggressions targeting females can affect well-being, self-identity formation, and academic engagement, females need more social supports to prevent, cope with, and counteract the ensuing stress. However, students' peers often unknowingly commit microaggressions. Thus, Rowe (2008) suggested intentionally enhancing

microaffirmations to decrease the likelihood of unintentional microaggressions.

Microaffirmations are essentially the opposite of microaggressions. According to Rowe, microaffirmations are small, subtle, and often unconscious acts that occur when individuals or groups want to help others succeed or show they are valued.

Microaffirmations can take the form of gestures of inclusion, validating acts of listening, and acts that open up opportunities to marginalized groups (Rowe, 2008). Asserting positive inclusion and restating facts are used to terminate exclusion and negative stereotypes. Microaffirmations can facilitate creating a culture of supportive behaviors and can refute the negative emotions that occur after a microaggression. Table 2 presents affirmation messages that oppose specific microaggression themes.

Table 2

*Microaggression and Affirmation Themes*

Type	Microaggression definition	Affirmation definition	Affirmation example
Sexual objectification	Being treated as an instrument of lust and sexual pleasure.	Viewing both sexes as individuals with complex personalities and desires/plans of their own.	A girl's friends believe she got the lead in the school play because she is talented and hardworking, not just because she is pretty.
Second-class citizen	Instances when men are favored over women.	Promoting inclusion and rights of both sexes.	During a group project, students listen to the girls' and boys' ideas equally.
Assumptions of inferiority	Women are viewed as weaker and less intelligent than men.	Viewing both sexes as equally capable individuals.	A girl is encouraged to join the math club because her peer believes she is smart and good at math .
Denial of the reality of sexism	Not believing that sexism still exists or down-playing a woman's experiences of discrimination.	Confirming that girls' experiences of inclusion and respect differ from the experiences of men.	A girl complains that all of the student body officers are boys. Her peer acknowledges how hard it must be to not be represented.
Assumptions of traditional gender roles	Assuming that women should conform to stereotypical female roles and activities.	Believing that women may choose among the same roles as men and confirming that women are capable in these roles.	A girl wants to be a mechanic when she grows up. Her friends encourage to sign up for the auto-shop class.

These affirming messages provide evidence against the false beliefs and assumptions presented in a microaggression. Moreover, receiving microaffirmations may help minority students feel supported in their academic aspirations and believe that they belong at school despite experiencing microaggressive acts (Ellis, Powell, Demetriou, Huerta-Bapat, & Panter, 2018).

### **Influence of Puberty**

The impact of microaggressions may additionally be influenced by the timing of puberty. Puberty is the growth and development that occurs when a youth's body changes from a child to an adult. During puberty, middle school students undergo skin changes, body hair growth, growth spurts, alterations in sweat glands and maturation of sexual organs. Pubertal hormone changes are also associated with social emotional changes such as increased anxiety and depression symptoms which are associated with declining self-worth and poor coping skills (Reynolds & Juvonen, 2012).

The duration of pubertal development is generally 2 to 4 years, however, the onset and rate of development is distinct for each student. In general, girls show signs of puberty before boys. These female biological changes include breast development, underarm and pubic hair growth, and menstruation. Due to the developmental changes that occur during puberty, the timing of puberty often affects the manner in which girls experience social support.

Early maturing girls tend to receive less social support than their later maturing peers (Büttig, Weichold, & Silbereisen, 2007). This may occur because girls who go

through puberty early are sometimes excluded from female peer groups since their body changes make them physically different from their peers (Laursen & Hartl, 2013). Additionally, early puberty corresponds with more sensitivity to social evaluation and peer relationships in adolescent girls (Mendle, Turkheimer, & Emery, 2007). This sensitivity increases the stress early maturing girls experience in response to peer victimization (Mendle et al., 2007).

Early maturing girls also appear to be the targets of peer victimization more often than their later maturing peers. Among 7<sup>th</sup> grade girls, those who mature early experience higher levels of general bullying as well as higher levels of sexual harassment (Skoog, Özdemir & Stattin, 2016). These early maturing girls are, consequently, more likely to feel depressed and display depressive symptoms as a result of the higher levels of sexual harassment they experience (Skoog et al., 2016). Although microaggressions and microaffirmations have not been specifically studied in the context of pubertal timing, these findings suggests that early maturing girls receive less peer support, experience more victimization from their peers, and feel more distress in response to negative peer experiences.

### **Connection to Engagement**

In addition to being influenced by pubertal timing, microaggressions and microaffirmation may be linked to engagement during middle school. Engagement is a multidimensional concept used to define students' involvement in their own learning as well as the educational environment. Engagement has been divided into four subtypes:

academic, behavioral, psychological/emotional, and cognitive (Appleton, Christenson & Furlong, 2008). The academic component of engagement is comprised of on-task behaviors, completion of school work and overall academic performance. Behavioral engagement includes appropriate classroom conduct, academic effort and participation in classroom activities. The psychological/emotional component encompasses interest in academics, feelings of school belonging or identification, relationships with peers and teachers, and positive attitudes about learning. Cognitive engagement constitutes the ability to self-regulate, the quality and presence of learning goals, as well as investment in learning (Appleton et al., 2008).

An examination of existing literature on school-level racial microaggressions indicates that microaggressions may decrease elements related to these four types of engagement. Allen et al. (2013) found that racial microaggressions decrease self-esteem and led to higher levels of depression, anxiety, and trauma in K-12 grade students. Although this has not yet been studied with middle school students experiencing gender-based microaggressions, graduate students who are members of ethnic minorities report experiencing more racial microaggressions than their racial majority peers and these higher levels of microaggressions are associated with higher reports of emotional distress and lower reports of school belongingness (Clark et al., 2012). The decreased sense of belonging reported by ethnic minority graduate students who experienced microaggressions is linked to decreases in academic performance as well. Specifically, Clark et al. found that students' sense of belonging had a significant positive correlation with their academic engagement. Although these findings have not, as of yet, been

replicated with younger populations or gender-based microaggressions, it is likely that future research will find similar academic effects in middle school students who experience gender microaggressions.

It has also been suggested that microaffirmations may buffer or repair the damage to feelings of belonging and academic performance that are inflicted by microaggressions. Although research on microaffirmations is in its infancy and there is currently little known about their effects, research on self-affirming statements or activities indicate that affirmations can improve productivity. Sherman et al. (2013) found that racial minority middle-school students who had experienced threats to their racial identity earned higher grades in school if they participated in personal value-affirming activities. These students also reported greater motivation in school and their feelings of academic fit were less likely to be affected by threats to their racial identity than their minority peers who did not receive the affirmations.

Cook, Purdie-Vaughns, Garcia, and Cohen (2012) found that ethnic minority students in middle school often experience microaggressions in the form of stereotypical assumptions that they are intellectually inferior and these assumptions lead to declines in the students' sense of belonging. Ethnic minority students who are struggling in school tend to experience this decline in feelings of belonging quickly after the transition to middle school with the greatest decline being seen in the seventh grade (Cook et al., 2012). Although well-performing students are buffered somewhat against the effects of microaggressions, ethnic minority students with higher academic performance still experience declines in feelings of belonging but the descent is seen later, with the greatest



decline occurring during the eighth grade. However, students who are provided with value-affirming interventions are protected from this decline. Cook et al. found that when ethnic minority students were asked to write about why their top-rated values were important to them, they maintained higher feelings of belonging than their ethnic minority peers who were asked to write about why their lowest-rated values may be important to someone else. These protective effects were found regardless of the students' grade point averages before the intervention. In addition, the greatest protective effects can be seen when interventions are provided before academic problems arise. Cook et al. found that when affirming interventions were delivered before ethnic minority students experienced a decline in academic performance, these students maintained higher grade point averages and had higher feelings of belonging than their peers who did not receive early interventions.

The buffering effects of microaffirmations have been studied primarily in regard to racial minorities, but there is also some evidence that microaffirmations benefit females as well. Shnabel et al. (2013) provided an affirming intervention, in the form of a writing exercise, to a group of undergraduate students before administering a test of math ability. All of the participants were asked to rate a list of values based on the importance they attributed to each value. Each participant was then assigned to one of four writing tasks: expressing why a low-rated value could be important to someone else, expressing why a high-rated value made them feel independent, expressing why a high-rated value was important to them, or expressing why a high-rated value made them feel more connected to other people. Results indicated that males were unaffected by the

intervention, but females who wrote more about belonging performed better on the math test than females who expressed fewer themes of belonging (Shnabel et al., 2013). These study results suggest that self-affirming activities decrease the effect of stereotypical assumptions that females are intellectually inferior and consequently these self-affirming activities benefit female students' academic engagement.

### **Rationale and Purpose of Study**

Receiving negative messages from peers while undergoing the physical maturation of puberty can be a stressful experience that may interfere with academic engagement during middle school. Studies confirm that having social supports is one coping strategy that effectively reduces high levels of stress related to school. During puberty, peers play an increasing role in supplementing the supports from parents and other adults. Over time, consistent positive or negative messages from peers impact students' perceptions about themselves and their perceptions of how others view or support them. Negative devaluing messages about females, even if not purposeful and unconsciously based on socialized biases, may interrupt the positive peer social supports that have been shown to reduce stress. Although the relationship between microaggressions and engagement has not yet been studied with gendered microaggressions, experiences of microaggressions has been shown to decrease engagement among ethnic minority populations (Gillen-O'Neel, Ruble, & Fuligni, 2011). In addition, current research suggests that female students perform better academically in response to self-affirmations (Shnabel et al., 2013). Rowe (2008) suggests that positive

messages respecting female capabilities and value can be purposely chosen to replace or refute microaggressions. Thus, positive social supports from peers may be developed in the presence of microaffirmations that refute common female microaggressions and support academic engagement.

## **CHAPTER III**

### **METHODS**

#### **Participants**

Participants ( $N = 121$ ) in this study were female middle or junior high students between the ages of 12 and 15. All participants were recruited by Qualtrics, a research sampling service, and participated in the research by completing online surveys.

The sample contained more ninth graders than students in any other grade, with a similar percentage of seventh and eighth graders, and a minority of sixth-grade students. The majority of participants identified as White and reported English as their primary language. About a quarter of the sample identified as having a physical, mental, or emotional disability. Table 3 presents the specific demographic information of the sample.

#### **Measures**

##### **Demographic Form**

A demographic questionnaire was used to gather information from parents about the participants. The information obtained included student grade, age, ethnicity, native language, ELL services, and disabilities (see Appendix A).

##### **Let's Get Growing**

To determine the pubertal timing of each participant, a single-question form was constructed for this study (see Appendix B). Participants were provided with a brief

Table 3

*Demographic Data for Research Sample*

Demographics	<i>n</i>	Percent
Age		
12	33	27.3
13	31	25.6
14	40	33.1
15	17	14.0
Grade		
6 <sup>th</sup>	21	17.4
7 <sup>th</sup>	29	24.0
8 <sup>th</sup>	33	27.3
9 <sup>th</sup>	38	31.4
Race/Ethnicity		
Latinx	2	1.7
Native American/Alaskan Native	1	0.8
Asian	8	6.6
Black	9	7.4
Native Hawaiian/Pacific Islander	2	1.7
White	94	77.7
Other	5	4.1
Primary Language		
English	121	100
ELL Services		
Yes	12	9.9
No	109	90.1
Disability		
Yes	33	27.3
No	88	72.7
Receiving SPED/504 Services	22	18.2

description of the common signs of puberty and then asked to self-report the age at which they first noticed pubertal changes in themselves.

### **School Engagement Scale**

Academic engagement was measured using the School Engagement Scale (SES;

Fredericks, Blumenfeld, Friedel, & Paris, 2005). The SES is a 15-item self-report measure that assesses how often students are engaged with their schooling (see Appendix C). Responses are recorded using a 5-point Likert scale ranging from 1 (never) to 5 (all of the time). The scale is composed of three subscales: Behavioral Engagement, Emotional Engagement and Cognitive Engagement. The 4-item Behavioral Engagement scale asks students to rate how often they are on task and well-behaved in school through statements such as “I pay attention in class.” The 6-item Emotional Engagement scale asks students to rate how often they experience positive emotions about school through statements such as “I like being at school.” The 5-item Cognitive Engagement scale asks students to rate how often they work hard in school or make an effort to learn school material through statements such as “I check my schoolwork for mistakes.” For the purposes of this study a single engagement score was calculated for each participant by taking the average of all items on the SES. Prior studies with youth showed acceptable internal consistency reliability estimates that ranged from 0.77 to 0.87 (Hazel, Vazirabadi, Albanes, & Gallagher, 2014). A Cronbach’s alpha of .78 was reported within the present sample, within the acceptable range.

### **Students Affirming Girls in Middle Schools**

The degree that female students receive gender microaffirmations and gender microaggressions from their peers was measured using the Students Affirming Girls in Middle Schools scale (SAG-MS), a survey that was designed by the researchers specifically for the purpose of this study (see Appendix D). Only one scale was found in the literature, the Schedule of Sexist Events (Klonoff & Landrine, 1995), to measure

sexist-based events experienced by adults. This SAG-MS was designed around sexist themes utilized in the Schedule of Sexist Events and a literature review was conducted to identify additional female gender microaggressive themes that are relevant in the middle school environment. Based on information from the literature review, a preliminary version of the survey was drafted consisting of 10 items to measure five microaggressive themes: assumptions of traditional gender roles, assumptions of inferiority, being treated as a second class citizen, sexual objectification, and denial of the reality of sexism. Two specific microaggressions were written as items for each theme and a corresponding opposing item was written as a microaffirming message that communicates that girls are capable, respected, included and encouraged to succeed. For example, the experience that “Boys/Girls in your school believe that most girls will not or should not work” for the traditional roles theme corresponds to the affirming experience that “Boys/Girls in your school believe that girls can do any kind of job when they grow up.” Similar to the Racial Microaggressions Scale (RMS; Torres-Harding, Andrade, & Romero Diaz, 2012), respondents were asked to rate how often they have encountered each of the 10 items, which describe microaggressions and microaffirmations towards girls on a 4-point Likert-type scale ranging from 1 (never) to 4 (often). The Flesh-Kincaid readability scale rating of the assessment indicates that the measure is written at a 5.1 grade level. The items were further modified based on feedback from two school psychologists working at middle schools and six middle school aged girls on the relevancy and age appropriateness of each item in capturing the microaggression and corresponding affirmation themes. In the present study six scores were used from this measure. Scores reflect the averages of:

all microaggression items, all microaffirmation items, male microaggression items, female microaggression items, male microaffirmation items and female microaffirmation items.

### **Procedures to Pilot the Students Affirming Girls in Middle**

#### **Schools Scale**

After obtaining approval for the study from the institutional review board at Utah State University, 15 female middle school students were recruited by Qualtrics to pilot the SAG-MS. The female participants were recruited through their parents to expedite the process of consent. Parents were given a brief description of the study, and asked to electronically sign consent for the participation of their middle-school aged daughters as well as complete the brief demographic survey. Additional information for parents was provided on the end page of the demographic survey. This page included information about how parents can support their daughters' gender identity, and contact information for the researchers (see Appendix E).

Informed assent was obtained from the adolescents. Students who agreed to participate were given instructions on how to fill out each measure and asked to complete the Let's Get Growing form, the SES, and the SAG-MS. Following administration of the SAG-MS, students were asked to provide typed feedback about the measure in order to further ascertain their understanding of the questions (see Appendix F). All consent/assent forms, study information, and surveys were provided online through the Qualtrics system and all identifying information was separated from the participant's data.



Results from the pilot study indicated that the SAG-MS had internal reliability estimates of .82 for items measuring microaggressions from boys, .72 for items measuring microaggressions from girls, .79 for items measuring microaffirmations from boys, and .85 for items measuring microaffirmations from girls. Each Cronbach's alpha fell within the acceptable range. Additionally, participants' typed feedback about the SAG-MS did not indicate any significant problems with items on the questionnaire. Based on these preliminary results, no changes were made to the SAG-MS.

### **Study Procedures**

After completion of the pilot study, an additional 106 students were recruited in the same manner as those students who completed the pilot. Those recruited students were administered the same measures in the same order: the Let's Get Growing form, the SES, and the SAG-MS. These measures were also completed online through the Qualtrics system. For the analysis of research question 2, participants were excluded if they reported the age at which they started experiencing puberty as greater than their current age. A total of nine participants were excluded for this analysis.

## CHAPTER IV

### RESULTS

#### Preliminary Analysis

The means, standard deviations, and ranges for the SAGMS, Let's Get Growing, and SES used in the present study are reported in Table 4. Spearman's correlation tests were used to examine the relationships among variables used in the study. Results of these correlations are presented in Table 5.

Table 4

*Descriptive Statistics for SAGMS, Let's Get Growing, and SES*

Scale	<i>N</i>	<i>M</i>	<i>SD</i>	Range
Students affirming girls in middle schools				
Total Microaggressions	121	2.64	0.46	1.35-4
Total Microaffirmations	121	2.63	0.47	1.35-4
Microaggressions - Boys	121	2.74	0.50	1.3-4
Microaggressions - Girls	121	2.54	0.48	1.4-4
Microaffirmations – Boys	121	2.54	0.52	1.3-4
Microaffirmations – Girls	121	2.72	0.49	1.4-4
Let's Get Growing				
Age of Puberty	112	11.25	1.63	5-14
School Engagement Scale				
Behavioral Engagement	121	4.07	0.63	1.5-5
Emotional Engagement	121	3.25	0.78	1-5
Cognitive Engagement	121	2.68	0.92	1-5
SES - Total	121	3.28	0.61	1.6-5

*Note.* The SAG-MS ranges from 1 (never) to 4 (often). The SES ranges from 1 (never) to 5 (all of the time).

Table 5

*Correlations for Microaggressions, Microaffirmations, Age of Puberty, and Engagement*

Heading	Microaffirmations	Puberty age	Engagement total
Microaggressions	.346**	-.030	.069
Microaffirmations	--	-.076	.321**
Puberty age	--	--	.094

\*\*  $p < .001$ .

### Research Questions

#### Research Question #1

Research Question 1 asked, “Can gender based microaggressions and microaffirmations be assessed with consistency in middle school girls?”

Internal consistency was measured using Cronbach’s standard alpha. Cronbach’s alphas of .86 and .90, respectively, were reported for all microaggression items and all microaffirmation items on the SAG-MS. Additionally, the SAG-MS had internal reliability estimates of .77 for items measuring microaggressions from boys, .74 for items measuring microaggressions from girls, .84 for items measuring microaffirmations from boys, and .81 for items measuring microaffirmations from girls. All measures of internal consistency fell within the acceptable range.

#### Research Question #2

Research Question 2 asked, “What is the relationship between pubertal timing and gender based microaggressions and microaffirmations?”

Spearman’s correlation tests were used to examine the relationship between pubertal timing and gender based microaggressions and microaffirmations. There was a

nonsignificant correlation of  $-.030$  ( $p = .754$ ) between total microaggressions and pubertal age. There was also a nonsignificant correlation of  $-.076$  ( $p = .423$ ) between microaffirmations and pubertal age. Additional nonsignificant correlations are displayed in Table 6.

### Research Question #3

Research Question 3 asked, “Are there differences in girls’ perceptions of microaggressions and microaffirmations delivered by girls vs. boys?”

Paired  $t$  tests were used to examine the differences between reported microaggressions and microaffirmations from boys and girls. Results showed a statistically significant higher frequency of perceived microaggressions from boys ( $M = 2.739$ ,  $SD = .496$ ) than girls ( $M = 2.541$ ,  $SD = .481$ ) at school,  $t(120) = 6.686$ ,  $p < .0005$ . The test also showed a statistically significant higher frequency of perceived microaffirmations from girls ( $M = 2.717$ ,  $SD = .494$ ) than boys ( $M = 2.545$ ,  $SD = .523$ ) at school,  $t(120) = -5.020$ ,  $p < .0005$ .

Table 6

#### *Correlations of Pubertal Timing and Gender-Based Microaggressions and Microaffirmations from Boys and Girls*

Relationship	$r$	$p$
Pubertal timing and microaggressions from boys	-.040	.677
Pubertal timing and microaggressions from girls	-.012	.900
Pubertal timing and microaffirmations from boys	-.048	.613
Pubertal timing and microaffirmations from girls	-.091	.340

#### Research Question #4

Research Question 4 asked, “Do microaffirmations moderate the effect of microaggressions on school engagement?”

To test the hypothesis that microaffirmations moderate the effect of microaggressions on school engagement, a moderation regression analysis was conducted. The interaction between microaffirmations and microaggressions accounted for a significant portion of the variance in school engagement,  $R^2 = .22$ ,  $F(3, 117) = 10.99$ ,  $p < .001$ . Additional results of the regression are presented in Table 7. An interaction plot, based on the regression results, is displayed in Figure 1.

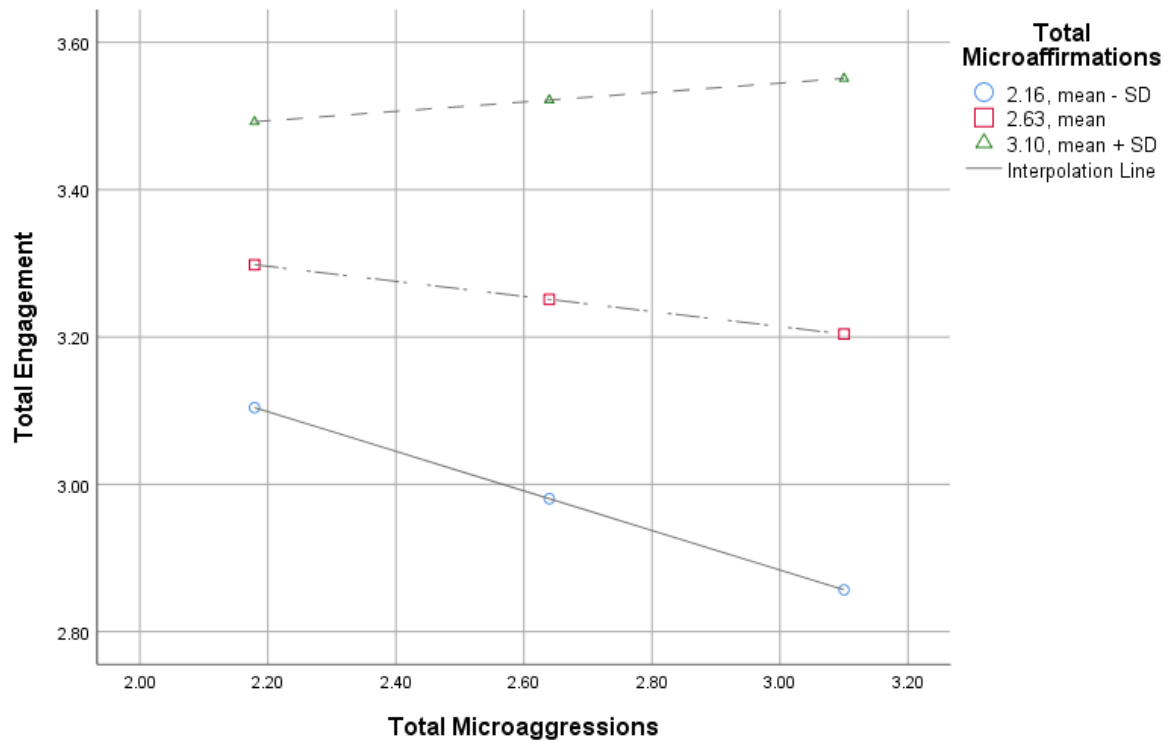
Examination of the interaction plot showed a buffering effect that as microaffirmations increased, the negative effect of microaggressions on engagement decreased. At low levels of microaffirmations, school engagement decreased as microaggressions increased. On the other hand, girls experiencing high levels of microaffirmations did not experience a drop in school engagement despite increasing levels of microaggressions.

Table 7

#### *Moderation Regression Analysis*

Variable	Coefficient	SE	<i>t</i>	<i>p</i>	Lower confidence interval	Upper confidence interval
Constant	4.4571	1.1663	3.8216	.0002	2.1473	6.7669
Total Microaffirmations	-.3558	.4168	-.8535	.3951	-1.1813	.4698
Total Microaggressions	-1.0272	.4440	-2.3134	.0224	-1.9065	-.1478
Interaction	.3516	.1527	2.3030	.0230	.0492	.6539

*Note.*  $R = .47$ ,  $R^2 = .22$ ,  $MSE = 0.30$ ,  $F(3, 117) = 10.99$ ,  $p < .001$ .



Note. Total Engagement = 4.4571 - 0.3558(Total Microaffirmations) - 1.0272(Total Microaggressions) + 0.3516(Total Microaffirmations x Total Microaggressions).

Figure 1. Total engagement based on interaction between total experience of microaggressions and microaffirmations.

## CHAPTER V

### DISCUSSION

Research on gender-based discrimination indicates that school-aged females are aware of and experience microaggressions (Brown et al., 2011; Grossman & Porche, 2014). Microaggressions carry negative outcomes such as poor identity development, low self-esteem, increased levels of depression and anxiety, decreased sense of school-belonging, decreased academic performance and decreased engagement in school (Allen et al., 2013; Clark et al., 2012). Some researchers have hypothesized that microaffirmations, or subtle acts that express inclusion and support, may be able to lessen or negate the effects of microaggressions (Rowe, 2008). Despite these findings, few studies have examined middle-school girls' perceptions of gender-based microaggressions from their peers, and no studies, to date, have investigated the occurrence of gender-based microaffirmations during middle school. Although studies have shown that self-affirming acts protect the engagement of minority students in the face of identity-threatening situations (Cook et al., 2012; Sherman et al., 2013), it has not yet been studied how peer microaffirmations impact the engagement of middle school girls experiencing gender-based microaggressions.

Due to implicit gender biases in our society, girls receive sexist messages that females are inferior to males from a young age. Female middle school students may be uniquely impacted by microaggressive messages from their peers because they tend to be more sensitive to social evaluation and place greater importance on peer relationships. Additionally, the experience and timing of puberty may make middle school girls even

more vulnerable to the negative effects of microaggressions. Exploring the perceptions of gender-based microaggressions and microaffirmations from a middle school perspective, as well as addressing the impact of pubertal timing on those perceptions can increase understanding of the threats adolescent girls face to their school engagement and academic performance. Furthermore, investigating how microaffirmations from peers impact the connection between microaggressions and decreased school engagement may provide additional knowledge of how to support female middle school students so that they can remain engaged in school in spite of sexist messages they may receive.

In the current study, the SAG-MS was created to address the lack of previous research on the frequency of gender-based peer microaggressions and microaffirmations during the middle school period. Testing of the SAG-MS suggested that it reliably measures female middle school students' perceptions of the microaggressions and microaffirmations they receive from their male and female peers. As expected, the participants in this study responded to items on the SAG-MS in a similar manner indicating that the items on the SAG-MS are likely measuring the same construct, gender-based microaggressions and microaffirmations from peers.

Although it was hypothesized that girls who experience puberty earlier than their peers would receive more microaggressions and less microaffirmations than typically developing girls, results of this study did not show any significant variations in the frequency of microaggressions and microaffirmations due to pubertal timing. These results are surprising because they do not support past research suggesting that early pubertal timing correlates with less social support and more experiences of peer



victimization (Büttig et al., 2007; Skoog et al., 2016).

Despite the lack of evidence for variations due to pubertal timing, results did show some variation in the frequency of microaggressions and microaffirmations based on the gender of the delivering peer. Specifically, in the current study, participants reported experiencing significantly higher levels of microaggressions from their male peers than their female peers. As previous research has shown, girls are more aware of the occurrence of microaggressions than boys (Brown et al., 2011). It is possible that girls' greater sensitivity to gender-based microaggressions helps them avoid committing these subtle discriminatory acts more often than their male peers. Results of the current study also revealed that female middle school students reported receiving significantly more microaffirmations from other girls than they did from boys at their school. These findings carry substantial implications because some researchers have found that girls who feel more comfortable around their opposite-sex peers experience higher levels of self-esteem (Darling et al., 1999). This suggests that increasing male middle school students' knowledge and use of microaffirmations may be an important way to protect the identity development and self-concept of adolescent girls.

It has been suggested that experiencing microaggressions threatens the confidence, motivation, and performance of minority students (Allen et al., 2013; Clark et al., 2012; Sue, 2010). In light of these threats, as well as evidence from the current study showing that middle school girls are experiencing gender-based microaggressions, it is important to consider the potential microaffirmations have to protect school engagement. Results of this study support previous research by showing that levels of engagement

tend to decrease as microaggressions become more frequent. However, the results also indicate that if middle school girls experience high levels of microaffirmations from their peers, their engagement in school will not drop in response to microaggressions. This finding is significant because even though previous studies have shown that self-affirmations buffer engagement in the face of microaggressions (Cook et al., 2012; Sherman et al., 2013; Shnabel et al., 2013), this is the first study to suggest that gender-based microaffirmations from peers may be a key component of keeping girls engaged in school during adolescence.

### **Limitations**

Although the current study advances research on gender-based microaggressions and microaffirmation in middle school, results should be interpreted with caution due to some limitations present in the study. The sample for this study was comprised of mostly White (78%) individuals who speak English as their primary language (100%). Due to the lack of representation of certain racial and language backgrounds, the results may not be generalizable to all female middle-school students.

Generalizability of the results may be further limited due to the study's small sample size. This is especially true for the analysis of pubertal timing. The average pubertal age was 11.25 for this study's sample, but only 22 girls reported experiencing the beginning of puberty before age 11. This small sample of early maturing girls may not have been enough to adequately represent the effects of early pubertal timing on microaggressions and microaffirmations.

Additionally, accuracy of the results may be limited due to the use of self-report measures. Although the use of self-report allowed participants to share their perceptions of school engagement and gender-based microaggressions and microaffirmations, the self-reported results may not reflect the actual levels at which these variables occur in middle school. Furthermore, the retrospective self-report of pubertal timing may have led to additional inaccuracies due to difficulties with exact recall.

### **Implications for Future Research**

Despite its limitations, the present study indicates that additional research should be conducted on the occurrence of gender-based microaggressions and microaffirmations in middle school. Results of this and previous studies show that female middle school students are aware of and experience microaggressions. The SAG-MS scale created for this study offers a new way to measure the frequency of microaggressions and microaffirmations towards female middle school students. Pilot testing of the SAG-MS indicates that it has acceptable levels of internal consistency, but the validity of the measure should be evaluated before wide-spread use. Future studies should verify that the SAG-MS accurately measures gender-based microaggressions and microaffirmations by examining the degree to which scales on the SAG-MS are related to other measures assessing similar constructs. Exploratory and confirmatory factor analyses should also be conducted to determine if items need to be added, removed, or altered to further refine the SAG-MS and its scales.

Analysis of the impact of pubertal timing on microaggressions and

microaffirmations was inconclusive in this study. Previous research suggests that early maturing girls receive less social support than their later maturing peers (Büttig et al., 2007), but this study found no significant relationship between timing of puberty and microaggressions or microaffirmations. Future research may need to examine the relationships among microaggressions, microaffirmations, and pubertal timing with a larger, more diverse sample. Additionally, the initial changes of puberty are often subtle and many girls may not be able to remember when they first noticed these changes occurring within themselves. Due to this complication, future researchers may want to use a more concrete event, such as first menstruation, in order to measure pubertal timing and its consequences.

Results of the current study suggest that male middle school students tend to perform less microaffirmations and more microaggressions than their female counterparts. Since previous research indicates that boys tend to be less aware of microaggressions than girls ((Brown et al., 2011), it may be beneficial for future studies to test if raising male awareness of microaggressions can help decrease the number of microaggressive acts male students perform. Furthermore, measuring the amount of distress female middle school students experience in response to microaggressions from their male peers compared to their female peers could help determine if interventions targeting male microaggressions will significantly benefit female middle school students.

Although the current study focuses on messages female middle school students receive from their peers, future studies may want to examine the occurrence of microaggressions and microaffirmations in the broader school network. Previous studies

have suggested that teachers may also hold stereotypical beliefs about their students' potential based on personal characteristics such as race or gender. It is further believed that the presence of these beliefs can influence the amount of attention and educational opportunities teachers provide to their students (Allen, 2012). Microaggressive acts committed by teachers and other school staff can harm minority students' identity development as well as their ability to use their education to achieve future success (Allen, 2012). Due to these potential negative effects, future interventions aimed at decreasing the frequency of microaggressions in middle schools may need to include teachers and administrators, as well as students.

Additionally, individuals working in middle schools may want to consider the benefits microaffirmations can provide to their students. The present study introduces significant implications for microaffirmation research. Results suggest that increasing microaffirmations may buffer the school engagement of middle school girls against the negative effects of microaggressions. Since this is the first study, to date, to test the impact of microaffirmations on the school engagement of middle school students, these findings should be confirmed with additional studies using larger sample sizes and more diverse populations. However, given the potential for microaffirmations to support positive female academic outcomes, future studies that develop and test training programs for teaching students and faculty how to provide microaffirmations may provide valuable insight into how to protect girls from negative outcomes during middle school.

In conclusion, gender-based microaggressions are occurring in middle school and

have the potential to decrease female school engagement. Since the academic habits developed during adolescence could influence the future success of members of the female population, middle school is a critical time to explore interventions that support women. Although research on microaffirmations is in its infancy, the present study shows that increasing microaffirmations from peers may keep girls invested in school despite receiving sexist messages that they are inferior. Future research should continue to focus on the potential of using microaffirmations to promote positive academic outcomes for female and other minority students.

## REFERENCES

- Allen, A., Scott, L. M., & Lewis, C. W. (2013). Racial microaggressions and African American and Hispanic students in urban schools: A call for culturally affirming education. *Interdisciplinary Journal of Teaching and Learning*, 3(2), 117-129.
- Allen, Q. (2012). "They think minority means lesser than": Black middle-class sons and fathers resisting microaggressions in the school. *Urban Education*, 48(2), 171-197.
- Appleton, J. J., Christenson, S. L., & Furlong, M. J. (2008). Student engagement with school: Critical conceptual and methodological issues of the construct. *Psychology in the Schools*, 45(5), 369-386.
- Brown, C. S., Alabi, B. O., Huynh, V. W., & Masten, C. L. (2011). Ethnicity and gender in late childhood and early adolescence: Group identity and awareness of bias. *Developmental Psychology*, 47(2), 463-471.
- Büttig, S., Weichold, K., & Silbereisen, R. K. (2007). Pubertäres timing bei mädchen und folgen in der späten adoleszenz = Pubertal timing in girls and the consequences in late adolescence. *Zeitschrift Für Entwicklungspsychologie Und Pädagogische Psychologie*, 39(3), 111-119.
- Capodilupo, C. M., Nadal, K. L., Corman, L., Hamit, S., Lyons, O. B., & Weinberg, A. (2010). The manifestation of gender microaggressions. In D. W. Sue (Ed.), *Microaggressions and marginality: Manifestation, dynamics and impact* (pp. 193-216). Hoboken, NJ: Wiley.
- Clark, C. R., Mercer, S. H., Zeigler-Hill, V., & Dufrene, B. A. (2012). Barriers to the success of ethnic minority students in school psychology graduate programs. *School Psychology Review*, 41(2), 176-192.
- Connolly, J., Furman, W., & Konarski, R. (2000). The role of peers in the emergence of heterosexual romantic relationships in adolescence. *Child Development*, 71(5), 1395-1408.
- Cook, J. E., Purdie-Vaughns, V., Garcia, J., & Cohen, G. L. (2012). Chronic threat and contingent belonging: Protective benefits of values affirmation on identity development. *Journal of Personality and Social Psychology*, 102(3), 479-496.
- Darling, N., Dowdy, B. B., Van Horn, M. L., & Caldwell, L. L. (1999). Mixed-sex settings and the perception of competence. *Journal of Youth and Adolescence*, 28(4), 461-480.

- Demaray, M. K., Malecki, C. M., Davidson, L. M., Hodgson, K. K., & Rebus, P. J. (2005). The relationship between social support and student adjustment: A longitudinal analysis. *Psychology in the Schools, 42*, 691-706.
- Ellis, J. M., Powell, C. S., Demetriou, C. P., Huerta-Bapat, C., & Panter, A. T. (2018). Examining first-generation college student lived experiences with microaggressions and microaffirmations at a predominately White public research university. *Cultural Diversity and Ethnic Minority Psychology*. Advance online publication. <https://doi-org.dist.lib.usu.edu/10.1037/cdp0000198>
- Fredericks, J. A., Blumenfeld, P., Friedel, J., & Paris, A. (2005). School engagement. In K. A. Moore & L. Lippman (Eds.), *What do children need to flourish? Conceptualizing and measuring indicators of positive development* (pp. 305-321). New York, NY: Springer Science and Business Media.
- Gillen-O'Neel, C., Ruble, D. N., & Fuligni, A. J. (2011). Ethnic stigma, academic anxiety, and intrinsic motivation in middle childhood. *Child Development, 82*(5), 1470-1485.
- Grossman, J. M., & Porche, M. V. (2014). Perceived gender and racial/ethnic barriers to STEM success. *Urban Education, 49*(6), 698-727.
- Hazel, C. E., Vazirabadi, G. E., Albanes, J., & Gallagher, J. (2014). Evidence of convergent and discriminant validity of the Student School Engagement Measure. *Psychological Assessment, 26*(3), 806-814.
- Klonoff, E. A., & Landrine, H. (1995). The Schedule of Sexist Events: A measure of lifetime and recent sexist discrimination in women's lives. *Psychology of Women Quarterly, 19*(4), 439-472.
- Laursen, B., & Hartl, A. C. (2013). Understanding loneliness during adolescence: Developmental changes that increase the risk of perceived social isolation. *Journal of Adolescence, 36*(6), 1261-1268.
- Leinbach, M. D., Hort, B. E., & Fagot, B. I. (1997). Bears are for boys: Metaphorical associations in young children's gender stereotypes. *Cognitive Development, 12*(1), 107-130.
- McIntosh, P. (1988). White privilege: Unpacking the invisible knapsack. In P. Rothernberg (Ed.), *Race, class, and gender in the United States: An integrated study* (pp. 165-169). New York, NY: Worth.
- Mendle, J., Turkheimer, E., & Emery, R. E. (2007). Detrimental psychological outcomes associated with early pubertal timing in adolescent girls. *Developmental Review, 27*(2), 151-171.



- Nosek, B. A., Smyth, F. L., Sriram, N., Lindner, N. M., Devos, T., Ayala, A., ... Greenwald, A. G. (2009). National differences in gender-science stereotypes predict national sex differences in science and math achievement. *PNAS Proceedings of the National Academy of Sciences of the United States of America*, *106*(26), 10593-10597.
- Reynolds, B. M., & Juvonen, J. (2012). Pubertal timing fluctuations across middle school: Implications for girls' psychological health. *Journal of Youth and Adolescence*, *41*(6), 677-690.
- Rowe, M. (2008). Micro-affirmations & Micro-inequities. *Journal of the International Ombudsman Association*, *1*(1), 1-9.
- Scarf, D., Moradi, S., McGaw, K., Hewitt, J., Hayhurst, J. G., Boyes, M., ... Hunter, J. A. (2016). Somewhere I belong: Long-term increases in adolescents' resilience are predicted by perceived belonging to the in-group. *British Journal of Social Psychology*, *55*(3), 588-599.
- Schwartz, A. E., Stiefel, L., Rubenstein, R., & Zabel, J. (2011). The path not taken: How does school organization affect eighth-grade achievement? *Educational Evaluation and Policy Analysis*, *33*(3), 293-317.
- Sherman, D. K., Hartson, K. A., Binning, K. R., Purdie-Vaughns, V., Garcia, J., Taborsky-Barba, S., ... Cohen, G. L. (2013). Deflecting the trajectory and changing the narrative: How self-affirmation affects academic performance and motivation under identity threat. *Journal of Personality and Social Psychology*, *104*(4), 591-618.
- Shnabel, N., Purdie-Vaughns, V., Cook, J. E., Garcia, J., & Cohen, G. L. (2013). Demystifying values-affirmation interventions: Writing about social belonging is a key to buffering against identity threat. *Personality and Social Psychology Bulletin*, *39*(5), 663-676.
- Skoog, T., Özdemir, S. B., & Stattin, H. (2016). Understanding the link between pubertal timing in girls and the development of depressive symptoms: The role of sexual harassment. *Journal of Youth and Adolescence*, *45*(2), 316-327.
- Stojković, I. (2013). Pubertal timing and self-esteem in adolescents: The mediating role of body-image and social relations. *European Journal of Developmental Psychology*, *10*(3), 359-377.
- Sue, D. W. (2010). *Microaggressions in everyday life: Race, gender, and sexual orientation*. Hoboken, NJ: Wiley.

- Torres-Harding, S. R., Andrade, A. L. Jr., & Romero Diaz, C. E. (2012). The Racial Microaggressions Scale (RMAS): A new scale to measure experiences of racial microaggressions in people of color. *Cultural Diversity and Ethnic Minority Psychology, 18*(2), 153-164.
- Wigfield, A., Byrnes, J. P., & Eccles, J. S. (2006). Development during early and middle adolescence. In P. A. Alexander & P. H. Winne (Eds.), *Handbook of educational psychology* (pp. 87-113). Mahwah, NJ: Erlbaum.

APPENDICES

Appendix A  
Demographic Questionnaire

**Demographic Questionnaire**

- 1) Child's age:
  - a. 12 years old
  - b. 13 years old
  - c. 14 years old
  - d. 15 years old
  - e. Other
  
- 2) Birth date (month/date/year): \_\_\_\_\_
  
- 3) Child's grade level:
  - a. 6<sup>th</sup> grade
  - b. 7<sup>th</sup> grade
  - c. 8<sup>th</sup> grade
  - d. 9<sup>th</sup> grade
  - e. Other
  
- 4) Child race/ethnicity:
  - a. Latinx
  - b. Native American or Alaska Native
  - c. Asian
  - d. Black
  - e. Native Hawaiian or other Pacific Islander
  - f. White
  - g. Other
  
- 5) What is your child's primary language?
  - a. English
  - b. Spanish
  - c. Chinese
  - d. Other
  
- 6) Is your child receiving ELL services?  yes       no
  
- 7) Does your child have a physical, learning or emotional disability (e.g., learning, ADHD, anxiety)?  
  
If so, what is the disability? \_\_\_\_\_  
Is your child receiving 504 or special education services?  yes       no

Appendix B  
Let's Get Growing

### **Let's Get Growing**

During middle school, girls are growing by getting taller and changing their shape to look less like a child and more like an adult. A girl's growth spurt will make her look more physically feminine. These growing changes are called puberty. Changes in your body may come with side effects, such as acne, sweating, body odor or mood swings.

1. How old were you when you first started to notice that you were growing up to look less like a child and more like an adult?

Your age: \_\_\_\_\_

Appendix C  
School Engagement Scale



**School Engagement Scale – Behavioral, Emotional, and Cognitive Engagement****Behavioral Engagement**

1. I pay attention in class
  - Never
  - On Occasion
  - Some of the Time
  - Most of the Time
  - All of the Time
2. When I am in class I just act as if I am working
  - Never
  - On Occasion
  - Some of the Time
  - Most of the Time
  - All of the Time
3. I follow the rules at school
  - Never
  - On Occasion
  - Some of the Time
  - Most of the Time
  - All of the Time
4. I get in trouble at school
  - Never
  - On Occasion
  - Some of the Time
  - Most of the Time
  - All of the Time

**Emotional Engagement**

5. I feel happy in school
  - Never
  - On Occasion
  - Some of the Time
  - Most of the Time
  - All of the Time
6. I feel bored in school
  - Never
  - On Occasion
  - Some of the Time
  - Most of the Time
  - All of the Time

7. I feel excited by the work in school

- Never
- On Occasion
- Some of the Time
- Most of the Time
- All of the Time

8. I like being at school

- Never
- On Occasion
- Some of the Time
- Most of the Time
- All of the Time

9. I am interested in the work at school

- Never
- On Occasion
- Some of the Time
- Most of the Time
- All of the Time

10. My classroom is a fun place to be

- Never
- On Occasion
- Some of the Time
- Most of the Time
- All of the Time

### **Cognitive Engagement**

11. When I read a book, I ask myself questions to make sure I understand what it is about

- Never
- On Occasion
- Some of the Time
- Most of the Time
- All of the Time

12. I study at home even when I don't have a test

- Never
- On Occasion
- Some of the Time
- Most of the Time
- All of the Time

13. I try to watch TV shows about things we are doing in school

- Never
- On Occasion
- Some of the Time
- Most of the Time
- All of the Time

14. I check my schoolwork for mistakes

- Never
- On Occasion
- Some of the Time
- Most of the Time
- All of the Time

15. I read extra books to learn more about things we do in school

- Never
- On Occasion
- Some of the Time
- Most of the Time
- All of the Time

Appendix D

Students Affirming Girls in Middle Schools

### Students Affirming Girls in Middle Schools

Second Class Citizen		
MA	BOYS in your school listen to other boys more than they listen to girls. <b>Never A little Sometimes Often</b>	GIRLS in your school listen to boys more than they listen to other girls. <b>Never A little Sometimes Often</b>
<b>Affirm</b>	BOYS in your school listen to girls as much as they listen to boys in group work <b>Never A little Sometimes Often</b>	GIRLS in your school listen to girls as much as they listen to boys in group work <b>Never A little Sometimes Often</b>
MA	BOYS in your school ignore it when girls do well in school. <b>Never A little Sometimes Often</b>	GIRLS in your school ignore it when girls do well in school. <b>Never A little Sometimes Often</b>
<b>Affirm</b>	BOYS in your school notice when girls do well in school. <b>Never A little Sometimes Often</b>	GIRLS in your school notice when girls do well in school. <b>Never A little Sometimes Often</b>
Assumptions of Inferiority		
MA	BOYS in your school show more support for boys as good leaders for group work, sports or clubs than for girls. <b>Never A little Sometimes Often</b>	GIRLS in your school show more support for boys as good leaders for group work, sports or clubs than for girls. <b>Never A little Sometimes Often</b>
<b>Affirm</b>	BOYS in your school support girls as good leaders for group work, sports or clubs as much as boys. <b>Never A little Sometimes Often</b>	GIRLS in your school support girls as good leaders for group work, sports or clubs as much as boys. <b>Never A little Sometimes Often</b>
MA	BOYS in your school pick more boys than girls as teammates for group work, sports or clubs because they think boys do a better job. <b>Never A little Sometimes Often</b>	GIRLS in your school pick more boys than girls as teammates for group work, sports or clubs because they think boys do a better job. <b>Never A little Sometimes Often</b>
<b>Affirm</b>	BOYS in your school pick girls and boys as teammates for group work, sports or clubs because they think both will do a good job. <b>Never A little Sometimes Often</b>	GIRLS in your school pick girls and boys as teammates for group work, sports or clubs because they think both will do a good job. <b>Never A little Sometimes Often</b>

Sexual Objectification		
MA	BOYS in your school think that the way girls look is the most important thing that matters about them. <b>Never A little Sometimes Often</b>	GIRLS in your school think that the way girls look is the most important thing that matters about them. <b>Never A little Sometimes Often</b>
<b>Affirm</b>	BOYS in your school think that girls' talents and personality are the most important thing that matters about them. <b>Never A little Sometimes Often</b>	GIRLS in your schools think that girls' talents and personality are the most important thing that matters about them. <b>Never A little Sometimes Often</b>
MA	BOYS in your school think that it's more important for girls than boys to follow school dress codes. <b>Never A little Sometimes Often</b>	GIRLS in your school think that it's more important for girls than boys to follow school dress codes. <b>Never A little Sometimes Often</b>
<b>Affirm</b>	BOYS in your school think that it's important for both boys and girls to follow school dress codes. <b>Never A little Sometimes Often</b>	GIRLS in your school think that it's important for both boys and girls to follow school dress codes. <b>Never A little Sometimes Often</b>
Denial of the reality of sexism		
MA	BOYS in your school don't notice when girls feel less valued. <b>Never A little Sometimes Often</b>	GIRLS in your school don't notice when girls feel less valued. <b>Never A little Sometimes Often</b>
<b>Affirm</b>	BOYS in your school realize that girls are sometimes less valued or respected than boys. <b>Never A little Sometimes Often</b>	GIRLS in your school realize that girls are sometimes less valued or respected than boys. <b>Never A little Sometimes Often</b>
MA	BOYS in your school ignore it when people put girls down. <b>Never A little Sometimes Often</b>	Girls in your school ignore it when people put girls down. <b>Never A little Sometimes Often</b>
<b>Affirm</b>	BOYS in your school defend girls or stand up against people who put girls down. <b>Never A little Sometimes Often</b>	GIRLS in your school defend girls or stand up against people who put girls down. <b>Never A little Sometimes Often</b>
Traditional gender roles		
MA	BOYS in your school believe there are certain classes or clubs that are meant for boys and not for girls. <b>Never A little Sometimes Often</b>	GIRLS in your school believe there are certain classes or clubs that are meant for boys and not for girls. <b>Never A little Sometimes Often</b>
<b>Affirm</b>	BOYS in your school believe girls can take any class or join in any club. <b>Never A little Sometimes Often</b>	GIRLS in your school believe girls can take any class or join in any club. <b>Never A little Sometimes Often</b>
MA	BOYS in your school believe that girls can't or should not do as many kinds of job or careers as boys. <b>Never A little Sometimes Often</b>	GIRLS in your school believe that girls can't or should not do as many kinds of job or careers as boys. <b>Never A little Sometimes Often</b>
<b>Affirm</b>	BOYS in your school back up girls choosing to do any kind of job as a grown up. <b>Never A little Sometimes Often</b>	GIRLS in your school back up girls choosing any kind of job as a grown up. <b>Never A little Sometimes Often</b>

Appendix E

Additional Parent Information Page

Dear Parents,

We all know that friends and peers are important to teenagers. Supportive friends help teens feel included and accepted. An important way peers can support teenage girls is to help them feel proud of being girls. As part of the research study your daughter is participating in, we will be asking your daughter questions about how her friends and schoolmates support her as a girl. Here are some ways in which you can be involved and help support your daughter:

- Work with your daughter to make a list of the positive characteristics of women
- Help your daughter identify several positive female role models she can talk to
- Help your daughter find clubs and activities that reinforce her value as a girl
- Keep taking time to talk with your daughter and reflect on her strengths and unique qualities
- Encourage your daughter to take pride in her identity as a woman

If you have any concerns or questions feel free to contact Christine Taylor at

[ChristineElaineT@gmail.com](mailto:ChristineElaineT@gmail.com) or Donna Gilbertson at [donna.gilbertson@usu.edu](mailto:donna.gilbertson@usu.edu).



Appendix F

Student Feedback Questionnaire for SAG-MS

Student Feedback Questionnaire for SAG-MS

1. Were there any questions that were confusing or didn't make sense? If so, which ones?
2. Was the questionnaire easy to read? What was difficult?
3. Can you tell us what you thought we were asking about?