



METROWEST WOMEN'S FUND



Framingham
State University

Needs Assessment of Middle School Girls in Metrowest

Research conducted by and
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Executive Summary

Many girls emerge from adolescence with a poor self-image, constrained views of their future and their place in society, and lack of assurance about themselves and their abilities. Popular culture further helps to deflate girls' self-esteem by marginalizing women and stereotyping their roles. (American Association of University Women 1994)

It is, therefore, important that the needs of girls are identified so that resources can be directed to assist in their complete and successful development.

Objective and Scope

The Metrowest Women's Fund is a community-based philanthropy with a mission to identify the needs of women and girls in Metrowest and raise resources to meet those needs. Middle school is a critical juncture for all girls and especially those of low and moderate income who have limited access to resources that address a range of issues including menstrual health, mental health, and healthy social development. An assessment of experiences and needs of middle school girls in Metrowest has, until now, never been completed. Working in partnership with the Center for Social Research at Framingham State University, the Metrowest Women's Fund conducted a needs assessment of middle school girls, as seen through the eyes of Principals of middle schools. The goals of the study were to ascertain needs of middle school girls in Metrowest and to identify unmet needs. Further goals, based on the results of this study, are to educate community residents and leaders, stakeholders, and donors about the identified needs and necessary resources and make a case for increased strategic philanthropy.

Methodology

An electronic questionnaire regarding the needs of middle school girls was prepared in 2020. In January and early February 2021, the questionnaire was sent to Principals from 37 middle schools in the Metrowest catchment area (with prior notification having been given to the Superintendents in the thirty-three communities in Metrowest). The response rate of 54% (Principals at twenty of the thirty-seven schools responded) was strong. The following report presents the results of the survey.

Results and Conclusions

Analysis of findings in each of the sections of the questionnaire revealed that there are specific issues that occur and re-occur. The greatest areas of concern are as follows:

1. Mental health conditions, including depression and anxiety, are of considerable concern. Issues with self-esteem and bullying are associated with both depression and anxiety. In addition, depression was found to be associated with dating violence, obesity, issues with gender identity, sleeping difficulties and lack of exercise/physical activity. An additional factor associated with anxiety was issues with self-assurance/feeling competent.
2. Three aspects of self-image issues are of considerable concern: body image, self-esteem, and feeling competent/self-assured.
3. In terms of social issues and relationships, bullying is of moderate concern and peer pressure is of considerable concern.
4. More than half (58.3%) of the respondents said the services provided were NOT adequate to meet the needs of middle school girls.

5. Half of respondents felt the Covid-19 pandemic and resulting alterations in academic conditions would create problems for girls with respect to academic issues, including a lack of confidence in educational abilities.

Identification of these issues is the first step that will enable the adults in the girls' lives, and all those who care for and about them, to consider ways to help middle school girls deal with the challenges they face and to meet the challenges successfully.

INTRODUCTION

As defined by the World Health Organization, adolescence is the time between childhood and adulthood, ages 10 through 19 (WHO). It is a distinctive stage of human development; an important time in the transition to adulthood. It has been coined a critical period of psychosocial development when individuals “acquire a stable personality, ...find their identity...learn to cope with various problem behaviors.” (Meeus 2016, p. 1969) It is a period in which individuals develop skills and attitudes and life choices that are the foundation for the rest of their lives. Identity formation, educational and interpersonal, is a critical component of this period, and it is common for adolescents to experience uncertainty with regard to this. (Becht, Nelemans, Branje, Vollebergh, Koot, Denissen and Meeus 2016) The adolescent’s thinking, feelings, decision-making and interactions with others are influenced by the rapid physical, cognitive and psychosocial growth during this time. (WHO) Adolescents, in the process of development, respond to those with whom they spend time, including family. (Wikle and Hoagland 2020) There are specific health, developmental, intellectual, and psychosocial needs to be addressed during adolescence. This is a time to learn to manage emotions and relationships and to develop the skills and abilities that are important to adolescence and necessary to begin to assume adult roles (Blakemore and Robins 2012).

During adolescence, students generally attend middle school. Students in grades 6, 7, and 8 range in age between 10 and 14 years, or early to mid-adolescence. This period is characterized by the beginning development of sexual maturation and abstract thinking, strong peer identification and increased health risk taking, which sets the stage for and often continues into late adolescence. Challenges during this part of adolescence include sexual health, safety and risk taking, establishing relationships, and education. (Christie 2005)

While adolescents are generally healthy during this period, there is significant death, illness and injury in the adolescent years. Much of this is preventable or treatable (WHO), but the literature suggests that an increase in risky behaviors occurs as the adolescent explores limits. Peers play a central role in decision-making during adolescence, and have been demonstrated to influence risky decision-making and risk taking. (Gardner and Steinberg 2005) If risky behavior can be reduced during adolescence, lives can be saved. (Soni and Bhalla 2020) In this phase of development, adolescents establish patterns of behavior – for instance, related to diet, physical activity, substance use, and sexual activity – that can protect their health and the health of others around them, or put their health at risk now and in the future(WHO).

One of the most important basic factors that affects growth, development and identity is self-esteem. Self-esteem is the foundation for life satisfaction (Biro, Striegel-Moor, Franko, Padgett and Bean 2005) and good self-esteem can improve the adolescent's academic performance and social life. Adolescents with good self-esteem are more likely to believe in themselves, have confidence that they can master new information and skills, meet with greater academic success, have better social relationships with peers, and have positive emotions generally, including better mental health, and improved coping skills. Lower levels of self-esteem make adolescents vulnerable to risky behaviors and are associated with adverse outcomes (e.g., depression, substance use, antisocial behavior) generally. (Biro et al. 2005)

Self-esteem “predicts later physical and mental health, satisfaction with relationships and work, economic prospects and longevity”. (Sharifabad, Hesary, Miri, Dastjerdi, and Sharifsadeh 2020, p. 26) Research has determined, however, that self-esteem, often relatively high prior to adolescence, begins to decline at age 11. This is a critical time when many adolescents transition to middle school and into puberty and experience cognitive changes that result in formal operational thought. (Biro et al. 2005) It

is, therefore, necessary that supportive and positive environments be provided for adolescents so they can develop good self-esteem.

An important factor that predicts low self-esteem (and is a risk factor for depression) is body dissatisfaction. (Paxton, Neumark-Sztainer, Hannan and Eisenberg 2006) Perceptions of appearance are closely tied to a sense of self-worth. (Shapka and Keating 2005) Concern with body appearance, a widespread phenomenon among adolescents, especially girls, is salient and subject to fluctuation. It often results from physical and biological changes that occur with puberty. The finding that body image predicts health-related quality of life (including risk of depression) among adolescent girls led to a recommendation that schools provide psychological support and body image interventions. (Ra and Cho 2017)

Adolescence is also the time for the expansion and refinement of social competencies. This includes development of interpersonal negotiation strategies, which rely on abilities to process information, and establishment of social and moral understandings. (Selman, Beardslee, Schultz, Krupa and Podorefsky 1986) The relevance of social competencies becomes apparent when considering a sense of belonging and its predictive value in resilience. Resilience is essential, during both adolescence and adulthood, in helping individuals successfully cope with adversity and stress. (Scarf, Moradi, McGaw, Hewitt, Hayhurst, Boyes, Ruffman and Hunter 2016)

Puberty (and biological and physical development generally) and cognitive development, including mental health, are significantly biologically determined. A large part of psychological and social development will also depend on environmental and sociocultural influences. These factors influence early life exposures and development into adulthood. The literature suggests that deleterious exposures in adolescence are patterned by socioeconomic, racial and ethnic factors, and living environment. (Torche 2019)

Exposure to maltreatment has been found to be an important predictor of developmental strains, maladaptive behavior, poor mental health and lifelong problems. Maltreatment is usually taken to mean abuse, but also applies to neglect. Sexual abuse has been found to be a risk factor for many psychiatric disorders, suicide attempts, low self-esteem, somatic complaints, and attention and concentration problems leading to poor academic performance. (Yuce, Karabekiroglu, Yildirim, Sahin, Sapmaz, Babadagi, Turla and Aydin 2015) The more such abuse is unrecognized and untreated, the graver the consequences. Other forms of abuse, specifically, physical and emotional, have significant and lifelong consequences as well. Those so abused have been found to be more likely to engage in violent and hostile behaviors. (Debowska, Boduszek, Sherretts, Willmott and Jones 2018) In the cases of each of these types of abuse, actual incidents are likely higher than reported. Neglect has been linked to psychological symptoms and deficits in learning that sabotage opportunities for mastery of developmental tasks related to social impairment and achievement. (Cohen and Thakur 2021)

There are several aspects of risky behavior worth noting among adolescents. Substance abuse is a significant concern, especially as alcohol use and consumption of illicit drugs have been increasing in recent years. Negative consequences of substance use include school dropout, strained family relationships and delinquency. Death, through suicide, accidents and violent crime, has been linked to substance use disorder. (Becker 2013) Another risky behavior that has risen to the point of concern within society is sexual activity. The general popular belief is that delaying sexual experiences in adolescence is beneficial. Research has shown that timing of such experiences is relevant to the psychosocial development of adolescents in a number of ways. Early experiences were associated with lower educational attainment, but late experiences were associated with poorer social relationships. Each was associated with lower subjective well-being. Adolescence is a time when both educational achievement and interpersonal relations are important

developmentally. Without biological, cognitive and psychosocial maturity to make informed sexual experience decisions, adolescents are at risk of jeopardizing their well-being. (Haase, Landberg, Schmidt, Ludke and Silbereisen (2012)

To address needs of students, it is essential to examine another factor that could affect educational attainment. It has been established that bullying and victimization each negatively affect sleep, which, in turn, increases risks of academic difficulties. (Rubens, Miller, Zeringue and Laird 2019) Being a bully has been shown to lower grades, and being bullied is negatively associated with self-perceived academic competence, especially among girls. Being bullied also predicts greater anxiety and depression, lowered self-esteem, and even suicidal behaviors. (Ma, Phelps, Lerner and Lerner 2009; Gradinariu 2018) Being victimized may lead adolescents to blame themselves for being bullied, which puts them at a higher risk for aggressive behavior as a coping mechanism. (Cohen, Shahar and Klomek 2019) Not only does victimization have immediate effects (including attention dysregulation and immature behavior), it is a predictor of later behavioral and adjustment problems. (Schwartz, McFadyen-Ketchem, Dodge, Pettit and Bates 1998)

During this critical period of transition from childhood to adulthood, dramatic changes in biology and psychology coincide with the interpretations of gender and gender role differences that girls and boys make at this stage and which have a profound impact on the adult lives of women and men in our society. There is considerable evidence that it is in middle school that girls and boys begin the different paths that will inform and guide and set the patterns for the rest of their lives. Girls begin first grade with comparable skills and ambition to boys, but by the time girls finish high school, most have suffered a disproportionate loss of confidence in their academic abilities. Girls aged eight and nine are confident, assertive, and feel authoritative about themselves. In the eight years following elementary school, girls' self-esteem falls, while most

boys retain their high self-esteem. Many girls emerge from adolescence with a poor self-image, constrained views of their future and their place in society, and much less assurance about themselves and their abilities. Popular culture further helps to deflate girls' self-esteem by marginalizing women and stereotyping their roles. (American Association of University Women 1994)

It is, therefore, important that the needs of girls, in particular, are identified so that resources needed to assist them in complete and successful development can be developed. In this regard, the Metrowest Women's Fund, an organization whose mission "is to identify the needs of women and girls in the Metrowest and raise resources to meet those needs¹" undertook this challenge by conducting a needs assessment of middle school girls in the Metrowest catchment area in Massachusetts.

The 33 communities comprising Metrowest are highly variable with respect to a number of key demographic factors. Population size ranged from a low of 5,252 to a high of 74,416². Per capita income within each community ranged from a low \$36,481 to a high of \$125,777 with an average of \$43,761³. Household income in Metrowest is higher than that of the state and nation⁴. All communities have residents representing a mix of ethnicities - Asian, Black, White and Hispanic. However, while all communities have a strong majority of White residents, the proportions of other groups are not equally distributed, with some communities having a higher percentage of Asian residents relative to the other groups, and other communities being heavily populated with Black or Hispanic residents⁵. Educational achievement, measured by percentage of residents with at least a B.A. degree, ranged from a low of 33% to a high of

¹ <https://www.metrowestwomensfund.com/>

² Population estimates as of July 2019 – U.S. Census Bureau

³ Per capita income in past 12 months (in 2019 dollars), 2015-2019, U.S. Census Bureau

⁴ Metrowest Economic Research Center, www.merc-online.org

⁵ Race data as of July 2019 – U.S. Census Bureau

81.9%⁶. On average, 54.8% of residents of Metrowest have attained at least a BS or BA degree, higher than the state average of 40.5%⁷.

Because the population of Metrowest differs from the state and national averages, it is reasonable to assume that the needs of middle school girls in this area may differ as well. The purpose of this study is to identify the needs of middle school girls in Metrowest, as a preface to the identification of resources and supports for the unique needs of the girls in the Metrowest area.

METHODS

Middle schools in each of the thirty-three communities that comprise Metrowest were identified. Some communities have more than one middle school, so each was included in the total population of middle schools (N=37 schools, as six communities have more than 1 middle school).

A message was sent to the Superintendent of each school district identifying the mission of the Metrowest Women's Fund (MWF) (i.e., to change lives of women and girls by ascertaining and raising awareness of their needs and gaps in services) and the goal of the study (i.e., a needs assessment of middle school girls). The purpose of the message was to inform Superintendents about the MWF and that messages would be going to the Principals of each middle school in the district asking for participation in completing an electronic questionnaire about girls in their school.

Principals were contacted, told about the nature and purpose of the study, told that their participation was voluntary, and that all data would be kept confidential. They were also informed that the MWF was partnering with the

⁶ Educational achievement data as of July 2019 – U.S. Census Bureau

⁷ Metrowest Health Foundation, Community Health Assessment 2019

<https://d2yy08d49bfqoo.cloudfront.net/documents/publications/Community-Health-Assessment-Sept.-2019.pdf>

Center for Social Research (CSR) at Framingham State University. The CSR would be responsible for administering the questionnaire and analyzing results.

Given that this study was largely conducted during the COVID-19 pandemic, and with the understanding that Principals might be busy with other issues, the MWF reached out several times to remind respondents about the study and provide the link to the questionnaire. Principals were contacted both by E-mail (some receiving one reminder E-mail message and some receiving a second reminder) and by telephone (follow-up calls were made to the Principals in the non-responsive communities).

RESULTS

Twenty Principals responded to the questionnaire. Principals from fifteen communities identified their community. The identified responding communities had populations ranging from 8,310 to 74,416. Per capita income ranged from \$41,445 to \$95,688. Populations in these communities were predominantly White, with White residents ranging from 69.5% to 93.5% of the community. In seven of the communities Hispanics were the second highest percentage of residents; in seven of the communities Asian were the second highest percentage of residents; and in one community Blacks were the second highest percentage of residents. Educational achievement ranged from 39.0% to 82.8% of residents having at least a B.A. degree.

Section I. Issues confronting girls

Respondents were asked to identify the degree to which **specific items** were issues within their schools. Possible responses ranged from 1=not a big issue to 5=a very big issue. None of the four issues identified (lack of confidence in educational abilities, sexual health and sex education, classroom disruptions,

truancy) were deemed to be ‘big issues’, however, lack of confidence in educational abilities was identified as being the biggest of the issues.

Issue	Modal response*
Lack of confidence in educational abilities	3
Sexual health and sex education	2
Classroom disruptions	1
Truancy	1

* The modal response is the most frequently appearing response.

Factors associated with lack of confidence in educational abilities (in order of strength of association) included: bullying ($G=.852$; $p=.000$); sexual activity ($G=.760$; $p=.004$); sexual abuse ($G=.741$; $p=.023$); use of alcohol ($G=.694$; $p=.015$); and sleeping difficulties ($G=.533$; $p=.032$).

Half of the respondents said their school has **mentoring programs**; half did not. The programs that exist range from those associated with an organization (e.g., Big Sisters, Sources of Strength) to pairings of girls with adult or older student mentors. The programs are designed to support girls with respect to decision-making, self-advocacy, help-seeking and organizational skills. They also address social, emotional and academic challenges, including transitions between academic levels, and provide support and encouragement.

Section II. Health related issues

- A. Respondents were asked to identify the degree to which **specific medical/physical health conditions** were issues within their schools. Possible responses ranged from 1= not a big issue to 5=a very big issue. While none of the conditions were rated as big issues, five (5) of the nine (9) conditions were rated as more problematic (modal score of 2) than were the others.

Issue	Modal response
Obesity	2
Dis-inhibited eating	2
Sleeping difficulties	2
Lack of exercise/physical activity	2
Smoking/use of e-cigarettes/vaping	2

Factors associated with **obesity** (in order of strength of association) included: depression (G=.758; p=.000); lack of exercise (G=.738; p=.000); dis-inhibited eating (G=.730; p=.000); sexual abuse (G=.702; p=.029); physical abuse (G=.696; p=.023); sleeping difficulties (G=.682; p=.000); sexual activity (G=.671; p=.015); alcohol use (G=.594; p=.013).

Factors associated with **dis-inhibited eating** (in order of strength of association) included: obesity (G=.730; p=.000); sexual activity (G=.619; p=.027).

Factors associated with **sleeping difficulties** (in order of strength of association) included: bullying (G=.888; p=.000); lack of exercise (G=.742; p=.000); depression (G=.707; p=.000); obesity (G=.682; p=.000); obesity (G=.682; p=.000); sexual activity (G=.610; p=.020); issues with self-esteem (G=.609; p=.004); lack of confidence in educational abilities (G=.533; p=.032).

Factors associated with **lack of exercise/physical activity** (in order of strength of association) included: sexual abuse (G=.963; p=.000); physical abuse (G=.840;p=.001); exposure to crime in the community (G=-.833; p=.009); issues with ethnic identity (G=-.826; p=.000); obesity (G=.738; p=.000); classroom disruptions (G=.714; p=.004); per capita income of the community (G=-.710;p=.002); sleeping difficulties (G=.682; p=.000); issues with feeling competent/self-assured (G=-.660; p=.035); depression (G=.652; p=.016); size of

population in the community ($G=.651$; $P=.002$); alcohol use ($G=.650$; $p=.016$); lack of confidence in educational abilities ($G=.634$; $p=.025$); bullying ($G=.625$; $p=.006$); issues with self-esteem ($G=.556$; $p=.025$) truancy ($G=.512$; $p=.042$).

There was also concern expressed that lack of exercise/physical activity would be associated with negative effects of COVID-19 on additional instruction (e.g., music, art) ($V=.881$; $p=.003$) and on confidence in educational abilities ($V=.651$; $p=.035$).

Factors associated with **smoking/use of e-cigarettes/vaping** (in order of strength of association) included: exposure to crime in the community ($G=.927$; $p=.000$); classroom disruptions ($G=.797$; $p=.001$); dating violence ($G=.774$; $p=.002$); alcohol use ($G=.742$; $p=.000$); exposure to crime in the community ($G=.729$; $p=.003$).

There was also concern expressed that smoking/use of e- cigarettes/vaping would be associated with negative effects of COVID-19 on smoking ($G=-.886$; $p=.001$).

B. Respondents were also asked to identify the degree to which **specific mental health conditions** were issues within their schools. Possible responses ranged from 1= not a big issue to 5=a very big issue. In contrast to the medical/physical health condition concerns, the modal response for depression and anxiety was 4 for each. That indicates that mental health conditions are issues of considerable concern. Further, when respondents were asked to identify medical/physical health conditions not listed in the questionnaire, responses were overwhelmingly associated with mental health conditions (i.e., depression, anxiety, eating disorders). When asked to identify mental health conditions not listed in the questionnaire, respondents cited self-injurious behavior and suicidal ideation.

Factors associated with **depression** (in order of strength of association) included: dating violence ($G=.880$; $p=.004$); issues with self-esteem ($G=.868$;

p=.000); obesity (G=.758; p=.000); issues with gender identity (G=.732; p=.006); sleeping difficulties (G=.707; p=.000); bullying (G=.653; p=.003); lack of exercise/physical activity (G=.652; p=.016).

Factors associated with **anxiety** (in order of strength of association) included: bullying (G=.714; p=.000); issues with self-esteem (G=.667; p=.015); issues with feeling competent/self-assurance (G=.667; p=.015).

Section III. Self-image

Respondents were asked to identify the degree to which **specific aspects of self-image** were issues within their schools. Possible responses ranged from 1= not a big issue to 5=a very big issue. Two issues, gender identify and ethnic identity, received modal scores of 3, indicating they are of least moderate concern. Three issues, body image, self-esteem and feeling competent/self-assured, received modal scores of 4, indicating they are of considerable concern.

Factors associated with **gender identity** (in order of strength of association) included: use of drugs (G=.774; p=.017); depression (G=.732; p=.006); issues of self-esteem (G=.667; p=.003); issues with feeling competent/self-assured (G=.667; p=.003).

Factors associated with **ethnic identity** (in order of strength of association) included: issues with feeling competent/self-assured (G=.582; p=.002).

The factor associated with **body image** was issues with self-esteem (G=.677; p=.004).

Further, there were concerns that the COVID-19 pandemic would exacerbate several factors that would affect body image. They were depression (G=-1.000; p=.000); peer relationships (G=-.864; p=.001); and anxiety (G=-.745; p=.013).

Factors associated with **self-esteem** (in order of strength of association) included: issues of feeling competent/self-assured (G=.919; p=.000);

depression ($G=.868$; $p=.000$); issues with body image ($G=.677$; $p=.004$); issues with gender identity ($G=.667$; $p=.003$); anxiety ($G=.667$; $p=.015$); bullying ($G=.644$; $p=.000$); sleeping difficulties ($G=.609$; $p=.004$); peer pressure ($G=.583$; $p=.047$); lack of exercise/physical activity ($G=.556$; $p=.025$).

There were concerns that the COVID-19 pandemic would exacerbate several factors that would affect self-esteem. They were anxiety ($G=-.923$; $p=.000$) and depression ($G=-.803$; $p=.000$).

Factors associated with **feeling competent/self-assured** (in order of strength of association) included: issues of self-esteem ($G=.919$; $p=.000$); anxiety ($G=.667$; $p=.015$); issues of gender identity ($G=.667$; $p=.003$); issues of ethnic identity ($G=.582$; $p=.002$). In addition, there were concerns that the COVID-19 pandemic would exacerbate several factors that would affect feeling competent/self-assured. They were obesity ($G=-.935$; $p=.003$); anxiety ($G=-.923$; $p=.000$); peer relationships ($G=-.719$; $p=.008$); lack of exercise ($G=-.660$; $p=.035$); problems in additional (e.g., music, art) instruction ($G=-.524$; $p=.003$).

Section IV. Social issues and relationships

Respondents were asked to identify the degree to which **specific aspects of social relationships** were issues within their schools. Possible responses ranged from 1= not a big issue to 5=a very big issue. Sexual activity had a modal response of 2, making it the least issue of concern in this section. Bullying received a modal response of 3, meaning it is of moderate concern, and peer pressure received a modal response of 4, making it of considerable concern.

Factors associated with **bullying** (in order of strength of association) included: sleeping difficulties ($G=.888$; $p=.000$); lack of confidence in educational abilities ($G=.852$; $p=.000$); sexual abuse ($G=.811$; $p=.004$); exposure to crime in the community ($G=.724$; $p=.000$); anxiety ($G=.714$; $p=.000$); classroom disruptions ($G=.667$; $p=.013$); depression ($G=.653$; $p=.003$); issues of self-esteem ($G=.644$; $p=.000$); per capita income in the community ($G=-.625$; $p=.001$); lack of

exercise/physical activity ($G=.624$; $p=.006$); dating violence ($G=.623$; $p=.045$); alcohol use ($G=.590$; $p=.015$); sexual activity ($G=.585$; $p=.017$); issues with feeling competent/self-assured ($G=.556$; $p=.002$).

There was also concern expressed that the COVID-19 pandemic would exacerbate bullying by increasing anxiety ($G=-.811$; $p=.001$) and abuse ($G=-.811$; $p=.000$).

Factors associated with **peer pressure** (in order of strength of association) included: issues with body image ($G=.892$; $p=.000$); sexual health and health education ($G=.729$; $p=.002$); Issues with feeling competent/self-assured ($G=.658$; $p=.015$); issues of self-esteem ($G=.583$; $p=.047$).

In addition, there was concern that the COVID-19 pandemic would exacerbate the effects of peer pressure by increasing obesity ($G=-1.000$; $p=.004$) and anxiety ($G=-.800$; $p=.010$).

Section V. Family composition and relationships

Questions in this section asked about the nature of **family relationships**.

Type of Household	Percentage of girls living in the household
Dual parent, different sex	63.0
Dual parents, same sex	3.2
Single parent, female-headed	13.4
Single parent, male-headed	1.8
Guardian(s)	3.5
Grandparent(s)	3.1
Other*	2.5

* Other included group homes, shelters, foster care, living with other family.

When asked if girls have **primary or shared caregiver responsibilities** (e.g., for siblings, grandparents, other relatives), seven (7) respondents noted that between 1% and 50% of girls in their schools had such responsibilities.

Respondents were asked what percentage of girls in their schools have a parent or parents who are incarcerated. Responses indicated that ‘few’ or one percent or less of girls were in such a situation.

Section VI. Safety for middle school girls

Respondents were asked to identify the degree to which **specific issues related to safety** were problems within their schools. Possible responses ranged from 1= not a big problem to 5=a very big problem. None of the identified safety concerns were seen as big problems. The modal response for exposure to crime in the community and dating violence in school was 1; the modal response for sexual abuse and physical abuse was 2.

Section VII. Community resources available to assist middle school girls

When asked to identify the **services/resources available** in their communities, respondents identified the following: clubs; counseling services; mental health services; support groups for academic or self-esteem/confidence building purposes; youth and family services; sports/recreation programs; and mentoring programs. A few respondents said they were unaware of resources available outside the school.

More than half (58.3%) of the respondents said the services provided were NOT adequate to meet the needs of middle school girls.

Resources/services identified by respondents as **needed** to address the inadequacies included: mental health services; dietary and eating guidance; mentoring programs; leadership and career services; stress reduction programs; friendship and transition support and guidance; and more programs geared just for girls.

Section VIII. Effects of COVID-19

Questions in this section asked respondents to reflect on what they thought the effects of the COVID-19 pandemic would have on middle school girls.

Almost half of the respondents (43.8%) said they thought the pandemic would create problems for **girls' confidence in their educational abilities**. About one-third (31.3%) said they didn't know what the effect would be.

Half (50.0%) of the respondents said the pandemic would create problems in **basic areas of the curriculum** (e.g., math, science, communication skills). 43.8% said problems would arise in areas of **supplemental instruction** (e.g., sexual health education). Respondents were split (43.8% to 43.8%) on whether there would be problems with **additional instruction** (e.g., music, art).

Respondents were then asked what they thought the effect of the COVID-19 pandemic would be on health-related and behavior issues, aspects of self-image, and social and family relationships identified earlier in the questionnaire. (Percentage responses are presented for 'a great deal' of an effect, 'somewhat' of an effect, and 'very little' effect. The modal responses are highlighted in yellow.)

Effect of COVID-19 on:	A great deal	Somewhat	Very little
Pregnancy			100.0%
Obesity	7.7%	69.2%	23.1%
Dis-inhibited eating	23.1%	61.5%	15.4%
Sleeping difficulties	61.5%	38.5%	
Lack of exercise/physical activity	53.3%	46.7%	
Alcohol use/binge drinking		28.6%	71.4%
Use of non-prescription drugs		7.1%	92.9%
Sexually transmitted diseases			100.0%
Smoking/use of e-cigarettes/vaping		35.7%	64.3%
Self-esteem/self-assessment	33.3%	60.0%	6.7%
Depression	43.8%	50.0%	6.3%
Anxiety	62.5%	37.5%	
PTSD	21.4%	42.9%	35.7%
Family relationships	13.3%	66.7%	20.0%
Peer relationships	37.5%	50.0%	12.5%
Sexual activity/relationships		6.7%	93.3%
Abuse	7.1%	35.7%	57.1%
Safety	7.1%	35.7%	57.1%

Only slightly more than half (56.3%) of respondents felt their school has **adequate resources to address the needs of girls during the pandemic.**

Slightly more than one-third (31.3%) said the resources were not adequate and 12.5% said they weren't sure.

Section IX. Demographic information

The number of girls enrolled in a given school ranged from a low of 80 to a high of 600. The average enrollment is 294.

Respondents were not asked about the **size of their community** or the **per capita income of community members** in the questionnaire, but researchers believed these two variables might be important to consider relative to questions in the data collection instrument.

Communities were grouped into three categories based on **size**: fewer than 15,000 residents; between 15,000 and 40,000 residents; and more than 40,000 residents. The modal categories were less than 15,000 residents and between 15,000 and 40,000 residents.

Less than 15,000	37.5%
Between 15,000 and 40,000	37.5%
Over 40,000	25.0%

There were more problems perceived in larger communities. Specifically, there were more problems with physical abuse ($G=.880$; $p=.002$); truancy ($G=.871$; $p=.000$); sexual abuse ($G=.667$; $p=.046$); exposure to crime ($G=.667$; $p=.027$); and lack of exercise/physical activity ($G=.651$; $p=.002$).

It was in the larger communities where the COVID-19 pandemic was expected to have the most negative consequences. Those effects were anticipated with respect to: PTSD ($G=.745$; $p=.006$); lack of exercise/physical activity ($G=. -$

714; $p=.018$); issues with self-esteem supplemental instruction ($G= -.611$; $p=.018$); and additional instruction ($V=.556$; $p=.042$).

Communities were also grouped into three categories based on **per capita income**: less than \$50,000; between \$50,000 and \$70,000; and more than \$70,000. The modal category was less than \$50,000.

Less than \$50,000	37.5%
Between \$50,000 and \$70,000	31.3%
More than \$70,000	31.3%

There were more problems perceived in communities with lower per capita income. Specifically, there were more problems with sexual abuse ($G= -.750$; $p=.005$); lack of exercise/physical activity ($G=-.710$; $p=.002$); bullying ($G= -.625$; $p=.001$); issues with self-esteem ($G= -.613$; $p=.010$); issues with gender identity ($G= -.574$; $p=.020$); anxiety ($G= -.564$; $p=.040$); depression ($G= -.533$; $p=.015$).

It was in communities with lower per capita income where the COVID-19 pandemic was expected to have the most negative consequences. Those effects were anticipated with respect to: PTSD ($G= -.917$; $p=.000$); anxiety ($G=.750$; $p=.005$); confidence in educational abilities ($V=.687$; $p=.005$); and peer relationships ($G=.593$; $p=.039$).

Per capita income also had an effect on perceived adequacy of services ($V=.717$; $p=.046$). In communities with lower per capita income services were less likely to be deemed to be adequate.

Last question

Finally, respondents were asked if they wished to share any other information they thought would be pertinent to the discussion of middle school girls. Responses included the need for coping strategies to strengthen resilience; recognition of the large role that anxiety plays in the lives of many girls and the resultant need for development of coping skills in that regard; the effect of

social media on the lives of girls (especially during the pandemic;) the unequal distribution of resources and supports from one community to another; and the special circumstances of students newly immigrated (and often without English-language skills) to communities.

SUMMARY OF FINDINGS

Analysis of findings in each of the sections of the questionnaire revealed that there are specific issues that occur and re-occur and should, therefore, be noted. Conclusions are presented first in terms of the specific sections of the questionnaire and then summarized.

Section I: Issues confronting girls

The issue identified by respondents as presenting the greatest challenge was lack of confidence in educational abilities among the girls in their schools. Factors associated with lack of confidence were bullying; sexual activity; sexual abuse; use of alcohol; and sleeping difficulties.

Only half of the responding schools have mentoring programs. Those programs that do exist tend to rely on pairing girls with adults or student mentors. They focus on providing support for learning practical skills and assistance with social, emotional and academic challenges.

Section II: Health related issues

There were two parts to this section, one focusing on medical/physical health conditions and one focusing on mental health conditions.

A. Medical /physical health conditions

Each of the five conditions identified in the questionnaire (obesity, dis-inhibited eating, sleeping difficulties, lack of exercise/physical activity, and smoking/use of e-cigarettes/vaping) were considered minor issues by the respondents. Each of these five conditions was analyzed relative

to other factors to determine which were the best predictors of medical/physical health conditions.

Key factors found to be associated with medical/physical health conditions of concern are: obesity, depression, lack of exercise/physical activity, sexual activity, sexual abuse, sleeping difficulties, substance (alcohol and/or tobacco) use, exposure to crime in the community, and self-assessment issues (confidence in educational abilities, issues with self-esteem, identities, issues with feeling competent/self-assured). In a few cases, there was concern that the COVID-19 pandemic would exacerbate some of these issues.

B. Mental health conditions

Contrary to what was found relative to the medical/physical health conditions, respondents identified both anxiety and depression to be significant issues and of consideration concern. Further, when asked to identify any health related conditions not identified in the questionnaire, respondents listed conditions that were overwhelmingly associated with mental health, including self-injurious behaviors and suicidal ideation.

Key factors found to be associated with mental health conditions of concern are: self-assessment and personal issues (issues with self-esteem, issues with gender identity, issues with feeling competent/self-assured, obesity, sleeping difficulties, lack of exercise/physical activity), dating violence and bullying.

Section III. Self-image

Respondents were asked to identify the degree to which five aspects of self-image were issues within their schools. Two issues, gender identify and ethnic identify were considered of at least moderate concern; three issues, body image, self-esteem and feeling competent/self-assured, were considered to be of considerable concern.

Key factors found to be associated with self-image include: mental health conditions (depression and anxiety), identity issues (self-esteem, feeling competent/self-assured, body image, gender identity), relationships with others (peer relationships, bullying), and personal behaviors (lack of exercise/physical activity, sleeping difficulties).

Section IV. Social issues and relationships

Of the issues presented in the questionnaire, respondents identified sexual activity of some concern; bullying as of moderate concern; and peer pressure as of considerable concern.

Key factors found to be associated with social issues and relationships include: issues associated with personal behaviors (e.g., sleeping difficulties, lack of exercise/physical activity, sexual activity, drug or alcohol use); issues associated with self-assessment (e.g., lack of confidence in educational abilities, issues of self-esteem, feeling competent/self-assured, issues with body image); safety concerns (e.g., abuse, dating violence, crime in the community); and mental health conditions (anxiety and depression).

Section V. Family composition and relationships

Respondents indicated that most girls (63%) reside in dual parent, different sex households. The second most common household situation is single-parent, female-headed households (13.4%). Seven respondents reported that girls in their schools have primary or shared caregiver responsibilities. It was rare to find that girls had a parent or guardian who was incarcerated.

Section VI. Safety for middle school girls

None of the identified safety concerns was seen as a big problem. The biggest issues were reported as sexual abuse and physical abuse – each deemed to be of at least some concern.

Section VII. Community resources available to assist middle school girls

While respondents did identify services or resources available in their communities to assist girls, most of those services were located within the schools. More than half the respondents indicated that the services provided are NOT adequate to meet the girls' needs.

Section VIII. Effects of COVID-19

Approximately half of the respondents felt that COVID-19 would create problems for girls in their schools with respect to academic issues (confidence in educational abilities and in different areas of instruction).

A number of conditions/issues were identified as likely to produce 'a great deal' of an effect on girls. Those are sleeping difficulties, lack of exercise/physical activity, and anxiety. 'Very little' effect was expected on risky behaviors or the results of risky behaviors.

Slightly more than half of the respondents felt their school had adequate resources to address the needs of girls during the pandemic.

Section IX. Demographic information

The average enrollment in the schools is 294, with a low of 80 and a high of 600.

Researchers introduced size of community and per capita income of community members into the analysis, given the variability with respect to socio-demographic factors in communities within the Metrowest area. Results reveal that respondents in larger communities, and those in communities with lower per capita incomes, perceive more problems generally, and were anticipating more problems due to COVID-19.

Both size of community and per capita income within a community were found to have effects on a variety of factors, including educational issues; perceptions of self; relationships with peers; abuse; and mental health conditions.

Last question

When asked to share any additional information thought to be relevant to the discussion of middle school girls, respondents mentioned the need to help girls develop coping strategies; the importance of recognizing and addressing the role anxiety plays in girls' lives; the effects of social media; the unequal distribution of resources within the area; and the special challenges faced by the newly immigrated and those without English-language skills.

In summary:

There are themes (and issues) that arose repeatedly throughout the responses from the Principals. Specifically, they were:

- *Self-assessment issues* (e.g., lack of confidence in educational abilities, self-esteem, body image, gender identity, feelings of competence/self-assurance)
- *Personal and/or behavioral issues* (e.g., obesity, sleeping difficulties, lack of exercise/physical activity)
- *Interpersonal issues* (e.g., bullying, peer pressure, sexual activity, sexual and physical abuse)
- *Mental health issues* (e.g., depression, anxiety, PTSD)
- Inadequate programs and resources and services to meet the observed needs

CONCLUSIONS

As noted in the Introduction to this report, there are many challenges facing middle school students, especially girls. Among those cited in the literature and discussed earlier in this report are specific health, developmental, intellectual and psychosocial issues. Students grapple with identity formation and self-esteem, learning successful coping mechanisms, managing peer

relationships, physical changes and handling sexual pressures, and, for too many, mental health conditions.

The study reported here provide evidence that the middle schools girls in Metrowest experience the challenges and issues found to be true in previous research, thereby confirming what others have determined to characterize the adolescent period. In some instances, for example with respect to substance abuse, the problem seems to occur less than it does in other communities. However, there was ample evidence that lack of confidence, limited self-esteem, issues with interpersonal relationships, and mental health conditions exist to at least as great a degree as has been noted elsewhere. Identification of these is the first, and important, step that will enable the adults in their lives, and those who care about them generally, to consider ways to help middle school girls deal with the challenges and successfully meet them.

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