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Fall 2019

## Understanding Access to Menstrual Hygiene Products in the Akron Area

Corinne Plas  
cnp22@zips.uakron.edu

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### Recommended Citation

Plas, Corinne, "Understanding Access to Menstrual Hygiene Products in the Akron Area" (2019). *Williams Honors College, Honors Research Projects*. 1003.

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Understanding Access to Menstrual Hygiene Products in the Akron Area

Corinne Plas

The University of Akron

### Abstract

The purpose of this project is to contribute to the understanding of the nature of access to menstrual hygiene products in the Akron area. Questions being researched are “Do Akron area residents need better access to menstrual hygiene products?”, “What is the nature of current access to products in the Akron area?”, “What influences a lack of access to products, if anything?”, and “What kinds of products are preferred and actually used?” The project consists of a 30-question survey, which was taken online by 51 participants. Completed analyses were cross tabulation analyses using Qualtrics and IBM SPSS programs and Pearson Correlations using IBM SPSS. Results showed no statistically significant correlations between variables. Though no statistical significance was found, evidence suggests that there is a lack of access to menstrual hygiene products in the community, and a large portion of individuals who use products have, at some point in their lives, had no access to any products while menstruating. To adapt, a variety of methods were commonly used, such as rolling toilet paper, socks, rags into undergarments and utilizing support from others. In conclusion, additional research needs to be completed with a larger sample size and more concise questionnaire items in order to determine factors that influence a lack of access to menstrual hygiene products.

*Keywords:* menstrual hygiene products, sanitary products, period, low-income, Akron area, women’s reproductive health, pads, tampons, feminine products, barriers to access

## Introduction

The annual cost of menstrual hygiene products for many people reaches into the hundreds of dollars, without consideration of additional factors such as the need for pain management or birth control (Olson, 2018). For some, the annual cost of a period is thousands of dollars. Recent research in the St. Louis area has contributed to the ongoing widespread discussion of the issue of menstrual hygiene products, including what can happen if proper menstrual hygiene is not maintained. The authors compiled surveys and interviews from nearly 200 low-income women and concluded that one third of the participating women had used products not meant to absorb menses, including toilet paper and cloth, which could lead to serious health effects such as urinary tract infections (Kuhlmann, Bergquist, Danjoint, & Wall, 2019).

Both menstrual poverty and the social stigma associated with menstruation can have emotional and social effects on individuals who have experienced menarche, as well, including affecting individuals' school attendance and concentration (Crichton, Okal, Kabiru, & Zulu, 2013). There are consequences to limited access to menstrual hygiene products, and yet there are individuals who are unable to afford products. For example, individuals who are homeless report insufficient access to products, which cannot currently be supplemented by social welfare programs (Parrillo & Feller, 2017).

As the access to modern menstrual hygiene products has gained attention in recent years, organizations across the country have begun to attempt to address the issue (PR Newswire, 2018). In Akron, for example, the Period Project seeks to help provide needed products to homeless shelters (Dennison, 2017), and others may be able to receive products at their local food banks, when food banks have products available. These programs are meant to provide a

beneficial service; however, there is to date no publication indicating the continuing need in the Akron community.

The goal of this study is to contribute to a preliminary understanding of the level of low-income individuals' current access and need for access to menstrual hygiene products in the Akron area. The research questions for this project are “Do Akron area residents need better access to menstrual hygiene products?”, “What is the nature of current access to products in the Akron area?”, “What influences a lack of access to products?”, and “What kinds of products are preferred and actually used?”

## **Method**

### **Sampling**

The method of sampling used was a simple random sampling by survey. The survey used was a questionnaire distributed via Facebook, and the Qualtrics link was shared to the researcher's personal page, an area women's networking group, and a local events page for the Akron area. Qualtrics is the online survey platform used for this project. All posts were pre-written and preapproved. The posts themselves were public, meaning that they could be shared by anyone who wished to do so, and the link could be copied and distributed by anyone.

Responses were collected from November 9, 2019, to November 15, 2019, and the target participant number was 50 participants. 53 participants responded to the survey, one of whom did not consent to participation and one of whom did not respond to the questionnaire items. Analyses were performed on the responses of the remaining 51 participants, though participants had the option to opt out of any question if they did not wish to answer it.

### **Questionnaire Design**

The anonymous questionnaire *Understanding Access to Menstrual Hygiene Products* contained thirty items, one of which was not used in the questionnaire due to a technical error. Only the questions that pertained to each participant were presented to them. Due to this feature, the majority of the questions do not have responses from each participant.

After the introduction contact information, and consent agreement, there were 23 multiple-choice items and seven follow-up write-in items asking for further explanation or numeric inputs. The survey design was both quantitative and qualitative, however the focus was on quantitative items. Prior to the release of the survey link, 15 pilot tests of the survey were performed along with ten offline previews of the survey.

The independent variables in the study were: *zip code, ethnic identity, age, household size, number of individuals in the household who use menstrual hygiene products, yearly household income, employment status, product preference, product use, product satisfaction, access to preferred products, access to needed products, long-term access to products, number of individuals in the household, and medical concerns*. The dependent variables were: *average monthly expenditure on products, number of individuals in the household who use menstrual hygiene products, product preference, product satisfaction, yearly household income, long-term access to products, access to needed products, and products used*.

## Results

### Demographics

Fifty of the participants identified as women, and one individual identified as non-binary. All participants indicated that they currently menstruate or have in the past. Participants were from 28 distinct zip codes, however five were 30 minutes or more from the center of Akron, the farthest being in Dublin, Ohio. All zip codes were in Ohio, and only the Dublin zip code was not

a northeast Ohio zip code. Participants were asked to participate if they live or have lived in the Akron area, which allows for some diversity in location.

One participant identified as African American or Black, American Indian or Alaska Native, and White, one participant identified as American Indian or Alaska Native and White, one identified as African American or Black, one identified as Asian and White, one identified as Asian, and the remaining 46 participants identified as White only. Approximately one-third of participants were age 18-24, shown in **Table 1**, and the most common household sizes were two people and four people, shown in **Table 2**.

In all households but four at least one person used menstrual products and three had minors who used products as well. Six households spent no money on products monthly or used reusable products. The most common employment status among participants was full-time, followed by part-time and student, shown in **Table 3**. This is allowing for individuals to select more than one employment status, such as “working part-time” and “student”. The mean yearly household income range of participants was \$70,000 to \$79,999, with a mode of \$100,000-\$149,000, four over \$150,000, and four under \$10,000, shown in **Table 4**.

### **Product Purchase, Preference, and Use**

In terms of actually procuring products, approximately 78% of the participants were the main product purchaser for their household, 2% indicated that another household member did, 16% indicated that each member obtains their products separately, and 4% indicated that they are not needed or that no one obtains them. 42% reported spending \$5-\$9 on products monthly, 25% \$10-\$15, 26% \$16-20, 21% \$21-\$30, 5% \$31-35, and 5% \$60. When asked to select the locations from which they obtain products, 75% responded “grocery or retail store”, 2%

responded “gas station”, 13% responded “online”, 3% responded “work”, 2% responded “a social service agency”, and 5% responded “friends or family”.

The most commonly used products, allowing for participants to select more than one frequently used product, were pads, which made up approximately 45% of product usage, followed by tampons at 43%, menstrual cups at 12%, and other reusable products by 4%. In comparison, products that were most preferred by participants, whether available or not, were pads at approximately 70%, tampons at 57%, menstrual cups at 15%, 2% of the preferred products were pantyliners, and approximately 4% were other reusable products. Nine individuals responded that the products they used did not at all or only sometimes met their needs, whereas 37 individuals shared that their products did meet their needs. 44% of the individuals whose products did not meet their needs had issues with finding a product that did not cause leakage during use, and 33% had not found an effective or comfortable brand.

### **Access to Products and Adaptation Without**

On their ability to obtain their preferred products, 71% were always able to, 22% were almost always able to, 4% were sometimes able to, and 2% were never able to. When asked about their ability to obtain their needed menstrual hygiene products, 87% were always able to, and 13% were almost always able to obtain them. When further questioned as to whether they had ever been unable to access products while menstruating, 58% selected “never”, 6% selected, “in the past year”, 4% selected, “in the past five years”, and 34% selected “at some point in my life”.

Of the individuals who had had no access, 63% had had no access for less than one week, ranging from a few hours to a few days, 6% had had no access for two weeks, 13% for one to six months, and 19% for more than one year. Nine of these individuals were not living in Akron at



the time of their limited access. When asked about the barriers to their access to products, 6 were categorized as having been unable to afford them at the time, seven as having forgotten their products or run out, and three as having had no transportation or as having been young and unable to obtain products. When asked a follow-up question on how they adapted to having no products, responses had little variation. Participants were asked to explain how they adapted, and several of the 19 individuals in the category reported having used multiple methods to adapt.

There were 12 incidences of using toilet paper or paper towels in undergarments, four of asking a friend or coworker for products, two of having done nothing and bled into their undergarments, two having used socks, one having used rags, and one incidence of going home from school. Nine of the individuals who used toilet paper/paper towels, two who did nothing, one who used socks, and one who used rags reported only one adaptation method; each of the others reported two or more methods.

12% of respondents reported having medical concerns that require the use of specific menstrual hygiene products, and 50% of those individuals reported always having access to their required products, 16% reported almost always having access, 16% reported rarely having access, and 16% reported never having access.

### **Future Access and Beliefs of Current Access**

When asked whether they would utilize free products if they were available, 82% responded “yes”, 14% responded “no”, and 2% responded that products were not needed. The following question asked about the most convenient locations for free product access, and the most common response was “Grocery store/drugstore”, with 25 incidences, followed by “Public/restaurant restrooms” (five each). Other responses were “Work” (3), “Everywhere” (1), “Stores” (3), “Target” (1), “Community Center” (1), “YMCA” (2), “Agency” (1),

“School/University of Akron” (2), and “Gyms” (1). 75% of participants reported believing that individuals in the Akron area have difficulty accessing menstrual hygiene products, and when asked about the United States, 90% reported believing that people have difficulty accessing products, and 2% reported not believing so.

### **Cross Tabulations**

**Zip codes and income.** When compared, the zip code with the highest average monthly expenditure on products was 44311, at \$35 monthly. Participants in 44303, 44313, and 44044 spent approximately \$30, \$28, and \$25, while those in 44092, 44221, 44223, 44233, 44281, 44304, 44312, and 44333 spent approximately \$10-\$20 monthly. Participants in all other zip codes spent an average of \$10 or less. However, zip codes 44303 and 44304 had multiple participants with more than one person using products in the household, and when averaged out, monthly spending per person in those households was less than \$10.

Several of the zip codes in the study are nearer to other major cities than to Akron, which could conflate results based on relative location to the city. Zip codes 44223 and 44224 together had two participants who had had no access to products at some point in the past one or five years, 100% of participants from 44223 and 44278 had had none at some point in the past five years, 100% of participants from zip codes 44017, 44116, 44125, 44145, 44233, 44320, and 44685 had had no access at some point in their lives, 29% of those in 44313 had had none at some point, and 25% of those in 44304 had had none. Additionally, 40% of those in 44333 had had no access at some point, and 50% of those in 44303, and 25% of those in 44312 had had limited access at some point in their lives, as shown in **Figure 1**.

**Income and expenditure.** When income and spending on products were compared, the majority of households in each income range spent less than \$20 each month, and they averaged

approximately the same, excluding outliers. However, it should be noted that when income and number of individuals per household that used products were compared, 25% of the households with only one individual who menstruated had an income of \$80,000 or more (see **Figure 2**), representing 68% of the households in that range. Only three households in that range had two or more individuals who used products, and one had three. 55% of the households making under \$40,000 a year had one individual using products, however three had four or more, one had three, and three had two. It is possible that though approximately the same amount of money is spent per household in each income range, the lower income ranges have more households that have more than one individual using products such that the expenditures per person increase as income increases.

**Income and age.** When yearly household income was compared to age, 83% of those in the \$10,000-\$19,000 range were aged 18-24, however there was no other pattern. Age groups were evenly distributed among income ranges, as were the number of individuals in households when compared with age ranges, excepting that participants ages 18-24 were much more likely to live in a household of two, four, and five or more and much less likely to live in a household of one.

**Age, number of individuals using products, and expenditure.** The age group that had the most households with more than one individual who used products was 18-24-year-olds with seven households, followed by 40-44-year-olds with three, 45-49-year-olds with two, and 25-29-year-olds with one. When the monthly expenditures were compared to age groups, there was no consistent pattern. In general, more of the 18-24-year-olds' households spent less than \$15 monthly, as did the 25-29-year olds' and the 35-39-year-olds'. The 45-49-year-olds' households tended to spend between \$10 and \$25 monthly, whereas the 50-54-year-olds' households spent

between \$15 and \$35 monthly. When the number of menstruating individuals per household was considered alongside household expenditures, 50-54-year-olds and 45-49-year-olds tended to spend the most monthly on menstrual hygiene products.

***Product preference and age.*** Product preferences by age had no notable pattern besides tampons and being preferred by 18-24-year-olds over having a preference for a diverse set of products and reusable products being preferred by only nine individuals of varying ages. When asked whether their products met their needs, nearly half of the 25-29-year-olds, the 35-39-year-olds and the 50-54-year-olds reported concerns, whereas only a third of the 40-44-year-olds did and only one seventh of the 18-24-year-olds did.

***Product preference and income.*** When preferences were broken down by income, half of the participants whose households made earned less than \$10,000 preferred tampons and pads, and the other half preferred menstrual cups. Among those who earned between \$10,000 and \$19,999, 80% preferred pads only, and the other 10% preferred tampons and pads. Among those whose households earned \$20,000-29,000, 33% preferred pads, 33% preferred other reusable products, and 33% preferred tampons and pads. In the \$30,000-\$39,999 households 10% preferred tampons and 80% preferred pads, whereas in the \$40,000-\$49,999 range 33% preferred pads, 33% preferred tampons and pads, and 33% preferred tampons and menstrual cups. 50% of the individuals in households earning \$50,000-\$59,000 preferred pads, and 50% preferred either pantyliners and tampons or tampons and pads. 60% of those in the \$60,000-\$69,000 range preferred tampons and pads, with 20% preferring other reusable products and 20% preferring tampons and menstrual cups. Among \$70,000-\$79,000 50% preferred tampons and pads and 50% pads, and 100% of those on the \$80,000-\$89,999 range preferred tampons and pads. In the \$90,000-\$99,999 range, 50% preferred either pads or tampons, pads, and menstrual cups, and

50% preferred tampons and pads. In the \$100,000-\$149,000 range, 43% preferred tampons, 14% each preferred pads and pads and menstrual cups, and 29% preferred pads and tampons. Among those making \$150,000 or more, 33% preferred tampons, 33% preferred menstrual cups, and 33% preferred tampons and pads.

***Income and product satisfaction.*** When income and satisfaction with products were compared, the percentages of income groups that expressed concerns with their products were 20% of those earning \$10,000-\$19,999, 33% of those earning \$20,000 to \$29,000, 66% of those earning \$40,000 to \$49,999, 50% of those earning \$50,000 to \$59,000, 25% of those earning \$90,000-\$99,999, and 29% of those earning \$100,00-149,000.

***Income and access.*** When comparing household income and access to products, there was no significant pattern among those who stated that they had either never been unable to access products or had been unable at some point in their lives, however each participant who reported having had no access at some point in the last year or in the last five years had a yearly household income of less than \$70,000. Of the individuals who reported almost always being able to obtain needed products, approximately 17%, or one out of six, had household incomes of less than \$10,000, 17% had incomes of \$40,000-\$49,000, 17% had incomes of \$50,000-\$59,000, 33% \$60,000-\$69,000, and 17% had a yearly household income of \$90,000-\$99,000. 50% of those who reported almost always having access to products also reported having been unable to access products at some point in the past one or five years, and 50% reported having had no access at some point in their lives.

***Employment status and access.*** Employment status was also crossed with ability to access products and those who reported almost always having access, implying that at times, they have been unable to access products, were 11% of individuals working only full-time, 66%

of individuals who were only self-employed, the only individual who was both working full-time and was a student, and the only student who was receiving disability and also supplemental income.

***Income and employment.*** When cross tabulations were performed on yearly household income and employment status, results showed that the one individual who was only receiving supplemental income had an income of less than \$10,000, and the others in that income range were receiving disability and supplemental income, unemployed, and working part-time. Other notable results were that 60% of the students' households had incomes of \$10,000-\$19,999, all individuals who were working only part-time had household incomes of at least \$30,000, and that everyone whose household income was between \$10,000 and \$20,000 was a student, working full-time, or a musician.

***Age and long-term access.*** Age was cross tabulated with long-term access, with results showing that age was not significant when it came to never having had no access to products or having had no access at some point in participants' lives. However, 100% of those who had had no access at some point in the past year were under the age of 30, and those who had been unable to access products at some point in the past five years were in the age ranges of 18-24 and 45-49. When ability to obtain needed products was compared with age, there was no significant finding.

***Product satisfaction and access.*** Cross tabulations of satisfaction with products used and ability to access products determined that of the eight individuals whose products sometimes meet their needs, 38% were occasionally unable to access products, or "almost always" able to, while the other 62% were always able to access them. Of the individuals whose products always met their needs, 8% were sometimes unable to access or obtain their needed menstrual hygiene products. When access to preferred products was crossed with access to needed products, the

results were that 71% were always able to obtain both preferred and needed products, 11% were almost always able to obtain preferred products and always able to obtain needed products, 11% were almost always able to obtain preferred products and almost always able to obtain needed products, and 2% each were sometimes able to obtain preferred products but always able to obtain needed products and sometimes able to obtain preferred products and almost always able to obtain needed products.

***Product preference and products used.*** When products preferred were compared to products actually most frequently used, results were similar, with a few additions, as shown in **Figure 3** All of the participants who responded to the items about which products they used most frequently and which they preferred to use used at least one of their preferred products most frequently, however 26% used only one of their preferred products most frequently, even if they used more than one product.

***Ethnicity and access.*** When ethnic identity was crossed with products used, as shown in **Figure 4**, access to needed products, and ever having had no access to needed products, only the third cross-tabulation produced a significant result, with 75% of the respondents who did not identify as only White stating that they have had no access to products at some point in their lives, and 50% of those were in the past five years. Those two were the only respondents who had had no access to any products while menstruating at some point in the past five years.

### **Discussion**

When comparing income and spending on products, the majority of households in each income range spent less than \$20 each month, and they averaged approximately the same expenditure, excluding outliers. However, it should be noted that when income and number of individuals per household that used products were compared, 25% of the households with only

one individual who menstruated had an income of \$80,000 or more, representing 68% of the households in that income range. Only three households in that range had two or more individuals who used products, and one had three. 55% of the households making under \$40,000 a year had one individual using products, however three had four or more, one had three, and three had two. This suggests that households with higher incomes may have fewer menstruating members, despite having approximately the same household menstrual hygiene product expenditures per month.

As satisfaction with products in higher income ranges tended to be higher, it is also possible that individuals in the community who have incomes between \$40,000 and \$59,999 are not willing to spend additional money on products that better suit their needs. Additionally, all of the individuals who had had no access to products at some point in the past five years lived in households that made less than \$70,000 a year, indicating that not only are more low-income and middle-class individuals likely spending less on products per person and are less satisfied with their products, they are also much more likely to have no access to any products at some point. Furthermore, the fact that 38% of the individuals whose products almost always met their needs were also almost always able to access their products, there is further indication using satisfaction and access as variables that lower-income and middle class individuals have more limited access to products.

When yearly household income was compared to age, 83% of those in the \$10,000-\$19,999 range were aged 18-24. Age groups were evenly distributed among most other income ranges, as were the number of individuals in households when compared with age ranges, excepting that participants ages 18-24 were much more likely to live in a household of two, four, and five or more and much less likely to live in a household of one. When considering that



individuals in the age group 18-24 were more likely to have households with more individuals who used products, had more individuals in the \$10,000-\$19,999 range, and had low average expenditures, these individuals, in addition to those with household incomes between \$40,000 and \$59,999, may be at higher risk of not having access to adequate menstrual hygiene products.

Due to the high number of students in the \$10,000-\$19,999 range, this population would be important for social workers interested in providing menstrual hygiene product services as well, and as all of those who had had no access at some point in the past year were under the aged of 30, that would be an important demographic to target as well. 6% of the participants reported not always having access to medically specified menstrual hygiene products as well, which is also an important aspect of identifying the need in the community. This highlights the need for the inclusion of this topic in the medical community as well, as the even occasionally lack of access to medically specified products could lead to complications and should have more attention to it.

Though the number of individuals who reported having had no access to products at some point in the past five years was relative low, nearly 30% of participants reported not always having access to either their preferred or needed products, and when asked about how they adapted to not having their products, 63% of individuals reported using toilet paper to adapt, even though toilet paper is not a specifically regulated product by the United States' Food and Drug Administration and the FDA has no published research on the use of toilet paper as a menstrual hygiene product (Office of the Commissioner, n.d.). This is concerning, as there is little in the way of research on the possible health risks of using toilet paper in this way. Paper towels are also not regulated by the FDA for use as menstrual hygiene products, yet they were also items reported as used by participants. Other participants reported simply not using any

products, bleeding into their clothes, which presents another risk to hygiene. All of these are concerning, and further support the need for consistent access to menstrual hygiene products. Though many of the participants had simply forgotten their products or had run out, they would have faced the same difficulties as someone who could not afford products. For example, they may have faced discomfort or leaking, which were both reported in cases where participants could access products actually meant for menstrual hygiene maintenance and would likely have been concerns when using products not meant for that purpose.

Participants also overwhelmingly indicated a perception that individuals in the Akron area and in the United States have difficulty accessing menstrual hygiene products. The vast majority of participants also indicated that they themselves would be interested in utilizing free products were they available, and it is likely that making products more readily available would be a great asset to the community, as indicated by the fact that there are individuals who have not been able to access products or to access products that meet their specific needs. Furthermore, participants detailed where they thought free products would be most useful to obtain, and they greatly preferred the grocery store or the drugstore, which were the places where products were most frequently purchased, and public restrooms and restaurant restrooms. These locations, except perhaps restaurant restrooms, would be easily accessible to any individual who wished to use them, regardless of income, age, or household size, and they are present in many communities.

### **Limitations**

There are many limitations to a study of this size, the first of which is that the sample size is very small and limited in ethnic diversity. Additionally, the participants were all recruited from Facebook, which is a very limited pool, and many of the participants are from a similar

demographic background to the researcher due to the link being shared on the researcher's personal page first. There were multiple respondents who did not live in the Akron area at the time of their limited access to products and several whose zip codes were more than an hour outside of Akron, which detracts from the focus of the project on the Akron area, though identification of the Akron area was left to participants to determine.

There may also have been technical errors that affected the number of questions that were able to be seen by each participant. Though every effort was made to account for any possible response, it is possible that some questions were not displayed to participants to whom those questions may have been applicable. For example, question 19 was not displayed to any participants, though it was relevant to 19 of them. Furthermore, percentages for each question are based on the number of participants who completed that item, and some items had significantly fewer responses than others.

An additional limitation is that little exists in the way of peer-reviewed research on the medical aspects of limited access to products, or on the study of access to products in the United States at all. The majority of the existing research is focused on countries in Africa due to interest in high poverty rates and limited resources in some areas of the continent. Due to this, the survey questions have not been thoroughly tested and may not be the most effective to answer the research questions. Perhaps due to the length of the survey and the similarity of some questions, there were conflicting results for some questions.

### **Conclusion**

This study is limited in scope and breadth, but it brings attention to an issue about which there has been a great deal of conversation but very limited research. The results of this study provide support for this argument, and further support for the need for growth in the services

provided to the community. People are, and have been, experiencing difficulty maintaining constant access to menstrual hygiene products. In fact, a significant portion of the population, according to the research, has at some point had no access to any products whatsoever. This is an issue that needs to be addressed. Basic hygiene contributes to overall health in very important ways; it can help contribute to the prevention of illnesses of many types and can contribute to overall mental, emotional, and social health. Access to good menstrual hygiene, including sanitary products, can be a great barrier, and it has the potential to affect approximately 26% of the entire global population at any given time (House, Mahon, & Cavill, 2013). This is not a new issue, and yet there is still no permanent resolution.

Social workers and individuals who work closely with the community are uniquely outfitted for addressing important issues such as these, as they have the connections and skills to make an impact. This research indicates a need, and, conducted on a larger scale, could contribute to a better understanding of how to impact the community and improve the community's overall health and wellbeing as we work toward providing basic human necessities for all members. It is vital that menstrual hygiene and access to appropriate care and products be made a regular part of addressing assessing individuals' wellbeing. An act so small as providing a tampon in a bathroom, for example, for a child at school whose family that has not discussed them, or improving access for someone at work who forgot their products or for an individual who is homeless and has not had sanitary products that met their needs in weeks, to name just a few examples, could have a large impact on daily functioning and could truly make a difference in someone's life.

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**Table 1***Participant Age Ranges*

Participant Age Range	Number of Participants
18-24	16
25-29	3
30-34	5
35-39	7
40-44	9
45-49	7
50-54	4

*Note.* Shows participant ages ranges in the left column and the number of participants whose ages fall in each range in the right column. 16 of the participants were in the range of 18-24 years old. The next most common range was 40-44, with 9 participants.

**Table 2***Participant Household Sizes*

Participant Household Size	Number of Participants
One person	9
Two people	16
Three people	9
Four people	12
Five or more people	5

*Note.* Shows Participants household sizes in the left column and the number of participants with each household size in the right column. 16 participants had households of two, and 12 had households of four. Nine participants each had sizes of one and three people.

**Table 3***Participant Employment Statuses*

Participant Employment Status	Number of Participants
Full-time	24
Part-time	11
Student	11
Working multiple jobs	3
Musician	1
Homemaker	1
In hospice	1
Unemployed	1
Retired	1
Self-employed	6
Supplemental income or disability	6

*Note.* Shows participants' employment statuses in the left column and the number of participants with those statuses in the right column. Some participants had multiple statuses. The most common statuses were "Full-time" with 24 incidences, "Part-time" with 11 incidences, and "Student" with 11 incidences. "Self-employed" and "Receiving supplemental income or disability" each had 6.



**Table 4***Average Yearly Household Income*

Yearly Household Income Range	Number of Participants
Less than \$10,000	4
\$10,000-\$19,999	6
\$20,000-\$29,999	3
\$30,000-\$39,999	5
\$40,000-\$49,999	3
\$50,000-\$59,999	4
\$60,000-\$69,999	5
\$70,000-\$79,999	2
\$80,000-\$89,999	1
\$90,000-\$99,999	5
\$100,000-\$149,999	9
More than \$150,000	4

*Note.* Shows participants' yearly household income ranges in the left column and the number of participants in each range in the right column. The most common ranges were \$100-000-\$149,999 with nine and \$10,000-\$19,999 with six.

Figure 1

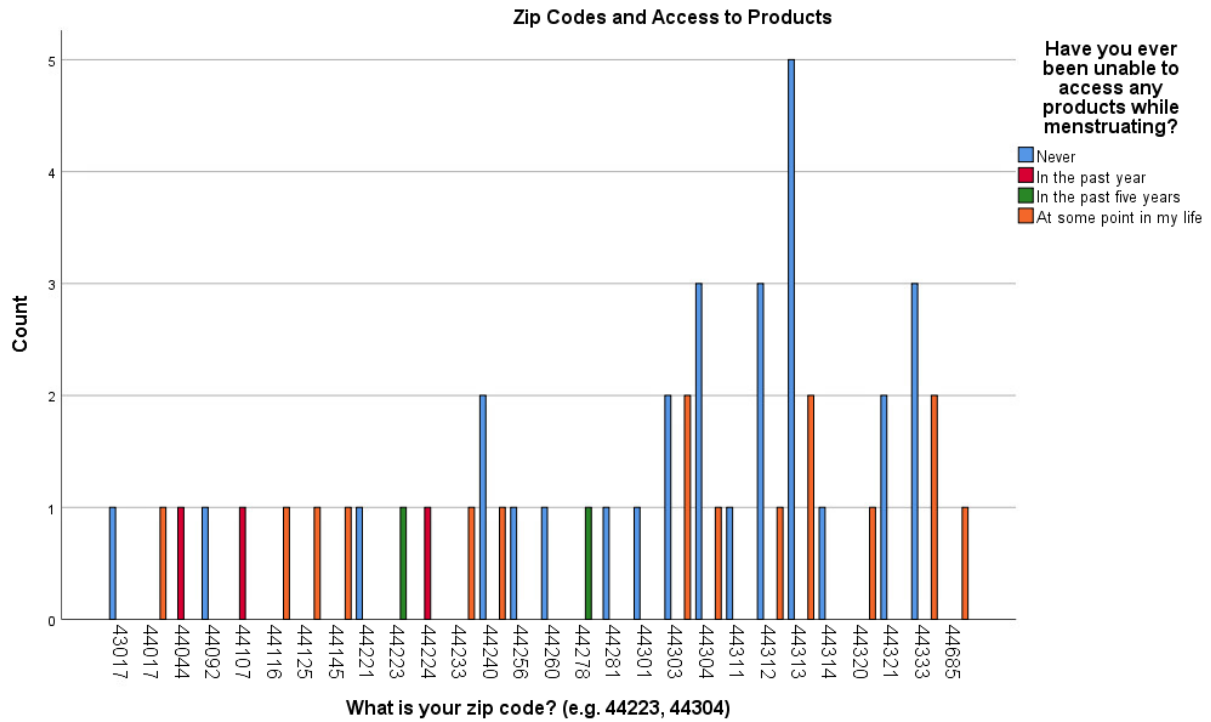


Figure 1. Number of individuals from each zip code and whether individuals have ever been unable to access menstrual hygiene products, denoted by color. Blue represents individuals who have never been unable to access products, red represents individuals who have had no access to products within the past year, green represents individuals who have had no access in the past five years, and orange represents individuals who have had no access at some point in their lives.

Figure 2

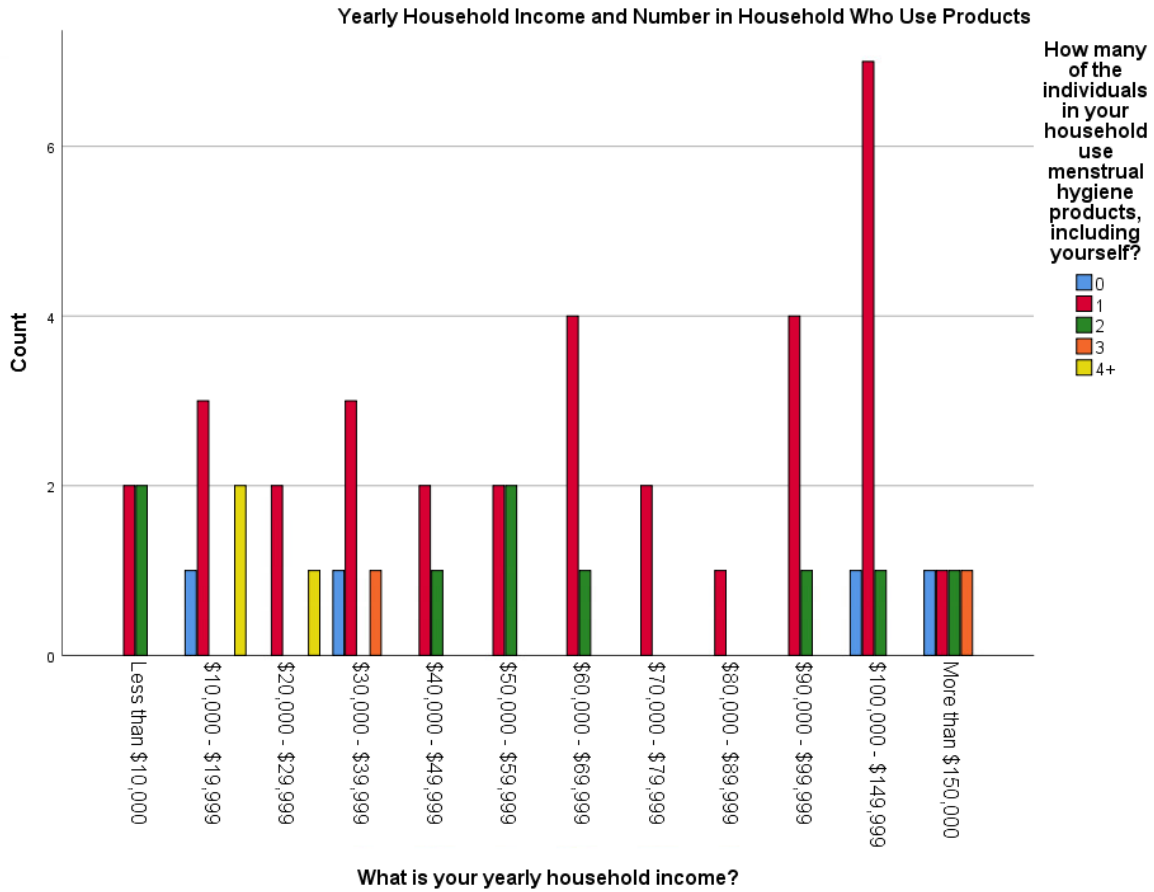
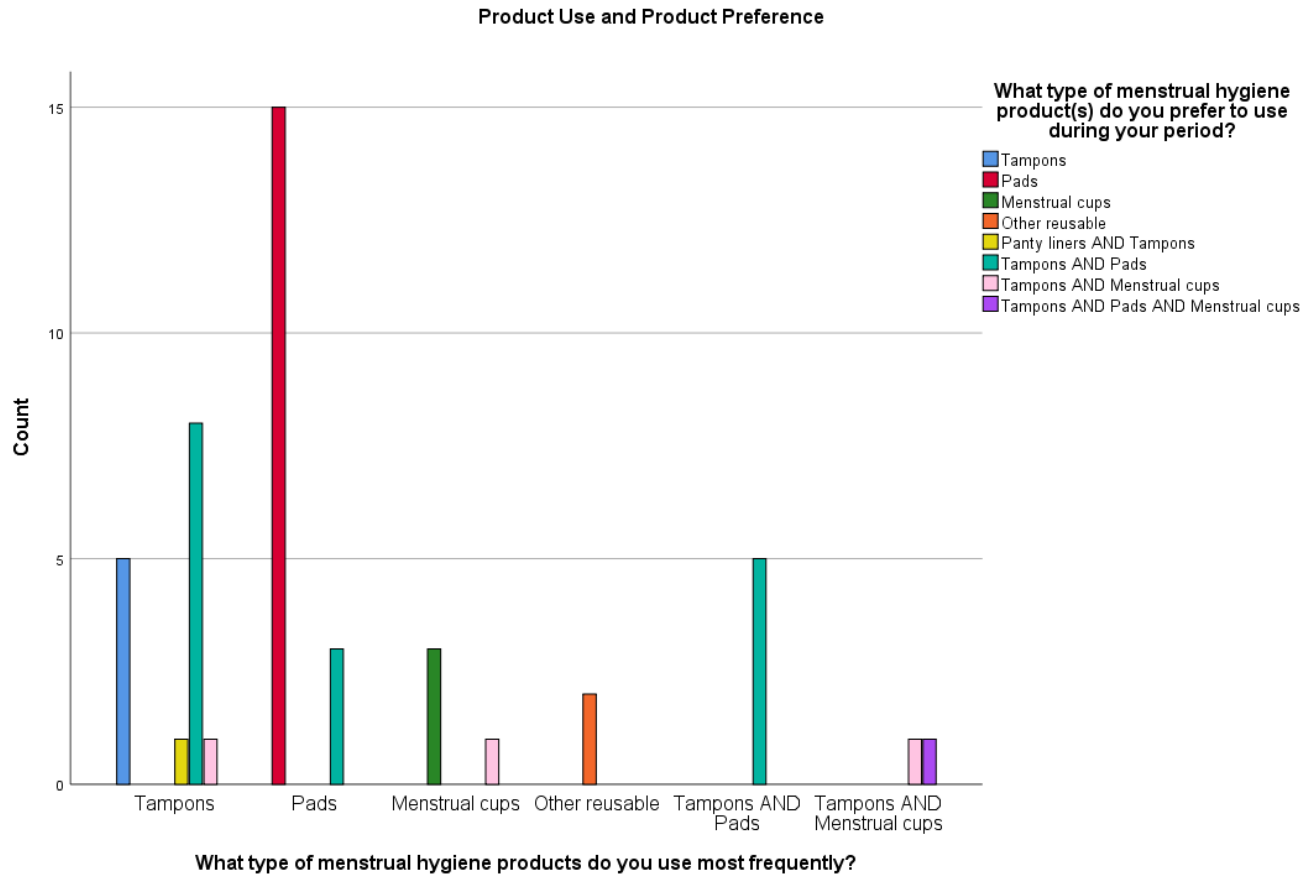


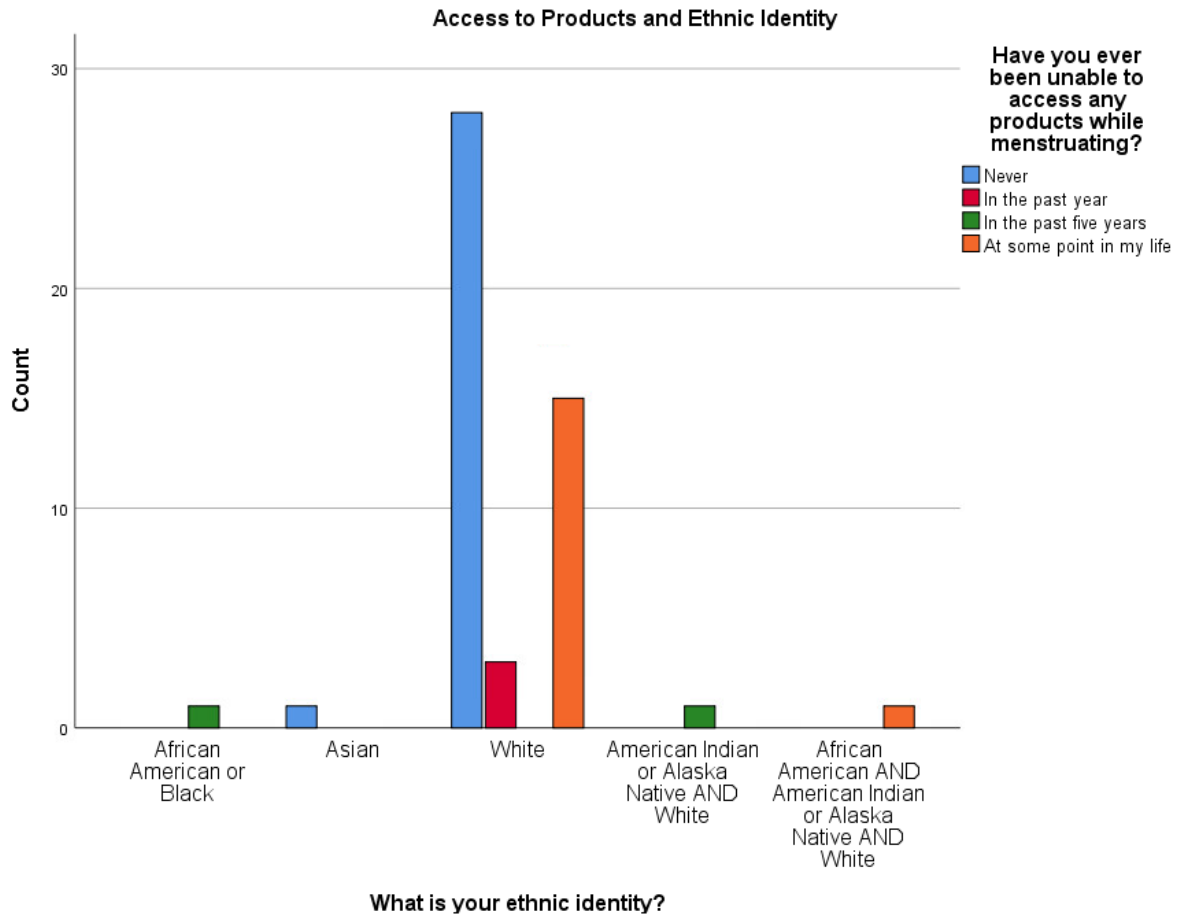
Figure 2. Incomes ranges represented on the x-axis, with number of individuals with households of that range along the y-axis. Number of individuals using menstrual products in that household denoted by colors.

**Figure 3**



*Figure 3.* Relationship of product preference and most frequent product use. Most frequently used product appears along the x-axis, while preferred products are denoted by color. The number of individuals using each product is shown on the y-axis.

**Figure 4**



*Figure 4.* Access to menstrual products and ethnic identity. Ethnic identities can be found along the x-axis, with the number of each identity’s occurrences on the y-axis. Selections denoting the nature of access to products are shown in varying colors.

## Appendix

### Survey Questionnaire

You are invited to participate in a voluntary research project entitled *Understanding Access to Menstrual Hygiene Products in the Akron Area*, conducted by Corinne Plas, an undergraduate social work student at The University of Akron.

This survey is an Honors Research Project through the University of Akron's School of Social Work, designed with the purpose of contributing to our understanding of the community's menstrual hygiene product needs. The focus is narrowed to products used to absorb or collect menstrual discharge.

You will be asked to complete 30 questions- 22 multiple-choice questions and up to 8 brief write-in questions, depending upon your answers to the multiple-choice questions. It should take approximately 10 minutes to complete and we hope to recruit at least 50 participants.

You *must* be **18 years or older** to complete this survey. You can withdraw from the survey at any time and without any consequences. Collected responses will be stored in aggregate and without any identifying information. Responses will be completely anonymous.

Answering questions about menstrual hygiene needs may be uncomfortable for some people, however there is no known risk to participants. Your participation in this project may help us better understand our community, but there will be no direct benefit or compensation provided to participants in this project.

If you have questions or concerns or are interested in the results of the survey analysis, we can be reached at (330) 275-1745 or at [UAMHNEastOhio@gmail.com](mailto:UAMHNEastOhio@gmail.com).

This project has been reviewed and approved by The University of Akron Institutional Review Board. If you have any questions about your rights as a research participant, you may call the IRB at (330) 972-7666.

**By completing this survey, you are consenting to have your responses included in the survey and the analyses of the results.** Please save this introduction for future reference.

I Consent

I **DO NOT** Consent

**Menstruation** or **Menstrual Period**- “a cyclical discharging of blood, secretions, and tissue debris from the uterus that recurs in nonpregnant breeding-age primate females at approximately monthly intervals and that is considered to represent a readjustment of the uterus to the nonpregnant state following proliferative changes accompanying the preceding ovulation”

Menstruation. (n.d.). Merriam-Webster. Retrieved from <https://www.merriam-webster.com/dictionary/menstruation>

**Menstrual Hygiene Materials** - Menstrual hygiene materials are the products used to catch menstrual flow, such as pads, cloths, tampons or cups.

Guide to Menstrual Hygiene Materials. (2019, May). UNICEF

\* Referred to as “menstrual hygiene products” in the survey

1. Do you menstruate?
  - Yes
  - No
  
2. What is your zip code? (ex. 44223, 44304...)
  - \_\_\_\_\_
  
3. What is your gender identity?
  - Gender Fluid
  - Man
  - Non-binary
  - Transgender
  - Woman
  - Self-identify as \_\_\_\_\_
  
4. What is your ethnic identity? **Select all that apply.**
  - African American or Black
  - American Indian or Alaska Native
  - Asian
  - Hispanic or Latino
  - Jewish
  - Middle Eastern
  - Native Hawaiian or Other Pacific Islander
  - White
  - Self-identify as \_\_\_\_\_
  
5. What is your age? Select a range.
  - 18-24
  - 25-29

30-34  
35-39  
40-44  
45-49  
50-54  
55-59  
60-64  
65+

6. How many individuals are in your household, including yourself?
- 1  
2  
3  
4  
5+
7. How many of the individuals in your household use menstrual hygiene products, including yourself?
- 0  
1  
2  
3  
4+
8. How many of the individuals in your household who USE menstrual hygiene products are minors?
- No one uses products  
0  
1  
2  
3  
4+
9. Who usually obtains the menstrual hygiene products for your household?
- They are not needed  
I do  
No one does  
Each person obtains separately  
I don't know  
Another household member  
A non-household member (please specify) \_\_\_\_\_
10. What is your yearly household income? Select a range.
- <\$10,000  
\$10,000-\$19,999  
\$20,000-\$29,999



\$30,000-\$39,999  
 \$40,000-\$49,999  
 \$50,000-\$59,999  
 \$60,000-\$69,999  
 \$70,000-\$79,999  
 \$80,000-\$89,999  
 \$90,000-\$99,999  
 \$100,000-\$149,999  
 More than \$150,000

11. Approximately how much does your household spend on menstrual hygiene products monthly?  
 \$0

\_\_\_\_\_

My household does not need products  
 My household uses reusable products

12. Describe your employment status. **Select all that apply.**

Part-time  
 Full-time  
 Unemployed  
 Retired  
 Self-employed  
 Working multiple jobs  
 Receiving supplemental income  
 (ex. WIC, Social Security, Disability, SNAP)  
 Other (please explain) \_\_\_\_\_

13. What type of menstrual hygiene products do you **prefer** to use during your period?  
**Select all that apply.**

Tampons  
 Pads  
 Menstrual cup  
 I do not use any products  
 I do not menstruate  
 Other (please specify) \_\_\_\_\_

14. What type of menstrual hygiene products do you **use** most frequently?  
**Select all that apply.**

Tampons  
 Pads  
 Menstrual cup  
 I do not use any products  
 I do not menstruate  
 Other (please specify) \_\_\_\_\_

15. Do the products that you use meet your needs?

- Yes
- No
- Sometimes
- I do not use any products

Please explain your previous answer. \_\_\_\_\_

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16. How frequently are you able to obtain your *preferred* menstrual hygiene products?

- Always
- Almost always
- Sometimes
- Rarely
- Never
- I do not need products.

17. How frequently are you able to obtain your *needed* menstrual hygiene products?

- Always
- Almost always
- Sometimes
- Rarely
- Never
- I do not need products.

18. Have you ever been **unable** to access any products while menstruating?

- Never
- I have never needed products
- In the past week
- In the past month
- In the past sixth months
- In the past year
- In the past five years
- At some point in my life

19. Approximately when did you have no access to products? \_\_\_\_\_

20. For approximately how long did you have no access to products? \_\_\_\_\_

21. Were you living in the Akron area at the time?

- Yes
- No

22. What would you identify as a barrier to your access? (e.g. “No products were available”, “I forgot mine at home”, “I could not afford to purchase any products”)

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23. How did you adapt to not having products? Please explain.

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24. Do you have any medical concerns that require specific menstrual hygiene products?

Yes

No

I do not need products.

25. How frequently do you have access to your medically specified products?

Always

Almost always

Sometimes

Rarely

Never

26. From where do you most frequently obtain your products?

**Select all that apply.**

Grocery or retail store

I do not know

Gas station

Online

School

Work

A social service agency

My friends or family

I usually do not have access to products

I do not need products

I make reusable products

27. If free products were available, would you utilize them?

Yes

No

I do not need products

28. If free products were available, what common location would be most convenient for you to access them? (e.g. a library, grocery store)

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29. Do you believe that individuals in the Akron area have difficulty accessing menstrual hygiene products?

Yes (please explain)

\_\_\_\_\_  
No (please explain)

30. Do you believe that individuals in the United States have difficulty accessing menstrual hygiene products?

Yes (please explain)

\_\_\_\_\_  
No (please explain)

Thank you for your participation in *Understanding Access to Menstrual Hygiene Products in the Akron Area!*

Please share any additional comments.

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

If you are in need of resources such as menstrual hygiene products, food, or housing, or counseling, you may be able to receive a referral for available local resources by calling 211 (dial 2-1-1) or by visiting <http://www.211summit.org/> if you are in Summit County. **211 and United Way are in no way associated with this survey.**