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A Glimpse into Menstrual Health Literacy in Appalachian Ohio

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BACKGROUND

Evidence supports that health literacy is intricately linked to education level.[1] The Appalachian region consists of thirteen states from southern New York to northern Mississippi. Appalachian Ohio reports the second lowest percentage of postsecondary education in Appalachian states at (52.2%), which falls more than 10% below the national average (63.3%).[2] The percentage of postsecondary education for the non-Appalachian portion of Ohio is 65.3%.[2]

Prior research has established that youth across the United States often lack adequate menstrual health education.[3] Currently, the Ohio Department of Education does not require menstrual education as part of broader sexual health education in schools.

Unawareness of normal menstrual patterns could lead to delayed recognition of serious health issues such as infection or malignancy.[4] Additionally, inadequate knowledge of normal menses can lead to unnecessary medical attention.

Given the low rates of higher education in the region, and thus health literacy, along with lack of state required menstrual education, low levels of menstrual health literacy might disproportionately affect this area.

Normal Menstrual Cycles in Adolescent Girls

Menarche (median age):	12.43 years
Mean cycle interval:	32.2 days in first gynecologic year
Menstrual cycle interval:	Typically 21–45 days
Menstrual flow length:	7 days or less
Menstrual product use:	Three to six pads or tampons per day

Figure 1: Information on normal range menses. Figure is from the American College of Obstetricians and Gynecologists.[4]

CASE REPORT

The following reported cases surround similar menstrual concerns presented within the same month at an outpatient Appalachian clinic. The clinic is located in an area classified as a high poverty rural area. In both cases, the patients were experiencing clinically normal menstruation despite their concerns. The parents of the patients also grew up in Appalachia and their highest level of education is high school.

CASE 1

An 11 year-old female, with a history of obesity, reached menarche and cycle length was every 4-6 weeks. The patient's mother was concerned the patient had reached menarche early and her cycle was irregular. Both the patient and mother were counseled on normal range of cycle length in early years of menstruation. Normal flow, types of menstrual products, and what to expect were also discussed with the patient and her mother.

CASE 2

A 13 year-old female, with a history of hormonal acne, described her menstrual flow as very heavy with the presence of clots. She described the heavy flow as soaking one pad every 4 hours. She described the clots as dime sized and occurring on the heaviest days of flow. The patient's mother was concerned the clots were a sign of infection. Relevant family history included iron deficiency anemia in the mother. Point-of-care hemoglobin was 13.2 mg/dL. Both the patient and mother were counseled on normal flow, including signs of concern, as well as when and why clots occur.

CLINICAL SIGNIFICANCE

Inadequate menstrual education in rural areas, as revealed by the presented cases of patients and parents being unaware of normal menstrual patterns, has important clinical implications. Menstruation is a clinical indicator of normal reproductive health and potential pathologies. Educating patients and their families about normal menstruation is crucial for promoting awareness of reproductive health complications, while reducing concerns about normal symptoms of menstruation. It is therefore imperative to conduct further research to determine whether lower levels of menstrual health literacy exist in this area and greater Appalachia in order to improve patient care and ultimately, the overall reproductive health of this population.

Figure 165: Map of Percentage of Adults with Some College Education in the Appalachian Region, 2010–2014

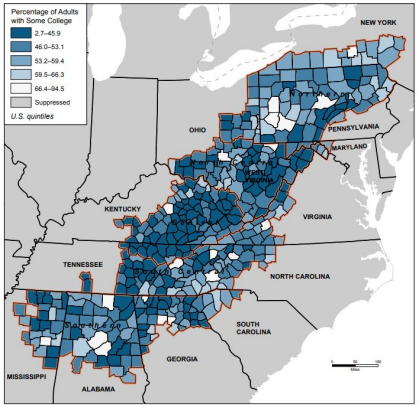

Figure 2: Map of higher education levels across Appalachia. Figure is from the Appalachian Regional Commission.[2]

CONCLUSIONS

Patients in Appalachia demonstrate lower education levels, which is correlated to lower health literacy. These cases highlight potentially inadequate menstrual education in Ohio. In both cases, the patients and parents were unaware of normal menstrual patterns, resulting in unnecessary distress. Additionally, the lack of required menstrual health education in Ohio schools is concerning. Thus, addressing menstrual health literacy is of the utmost importance. Further research and improved menstrual education should be pursued in the area.

SUMMARY

- Health literacy is linked to education level, and Appalachia continues to see below national average levels of postsecondary education.
- There are currently no requirements for including menstrual education in Ohio public schools.
- We present two cases of inadequate menstrual education at a single clinic in Appalachia.

REFERENCES

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