Section	<u>Pages</u>
Literature Review.	3
Research Question.	8
Methodology	8
Appendix	18
Bibliography	19

Introduction

Much of what is being affected in the health care system in the U.S is due to new presidential candidacy and the increasing health disparities in some states of the problem of healthcare in recent years. In the concern of increasing health disparities in the U.S the research project goal is to be able to raise awareness on the cause and effects on racial minorities having access to abortions and the effects it that has on their mental health and how accessible is mental health services in the U.S based on how they are more vulnerable than others when it comes to healthcare. Coming from a racial minority background in Seattle I understand the problems that this community has dealt with health care services by having to deal with an extent amount of time waiting to be able to get attended for an appointment, having to deal with limited coverage on issuance, having a hard time getting interpreters to be able to interpret, accessibility needs from distance of going to appointments and more. My interest in this topic of abortions has revolved around my interest in women's rights and also because as a woman every woman should have the right to abort. I also care alot about the topic about mental health deeply because of how I've dealt with anxiety my whole life and how I see the importance of taking care of the wellbeing. Within these two topics I've found an interest to have a way in which to see how accessing abortions and mental health affect the mental health of a racial minority. Through understanding the impacts on racial minorities' health disparities it's first important to understand disparities in health care through looking at the perspectives of minorities who have been affected by health care. This point is raised in Culhane-Pera et al.(2021) exploring the way in which they talk about the health care topic through gathering responses on the quality of health care through minorities. It states, "incorporating the voices of diverse communities would help understand the needs of the whole population rather than just those in privileged positions"

(Culhane-Pera et al., 2021, p. 2). Many of the arguments raised in this article Culhane-Pera et al. (2021) are that minorities feel like their voices are being diminished which has been something that is not taken into account as often as it should. Another part of the argument is to be able to see that there are health disparities in accessing of healthcare is through the effects of sexism in Rapp et al. (2021) approach through there research was to look at the state level collection of data to have on effect on the way of having barriers of healthcare does to this minority population. In looking at the data of barriers of women of color it states that, "28.3% of Black women reported not being able to see a doctor because of cost barriers" (Rapp et al., 2021, p 1802). This is of great concern on the effect of the health of this population due the fact that getting the care that they need is affected by the cost on how the economy has been in the U.S. this percentage could be higher due to barriers that are still imposed on women being able to access their needs through abortions and also due to the economy right now in the U.S. By looking at the way U.S healthcare has been affecting racial minorities in general it gives a way of reference to how abortion and mental health access will be two critical points to cover a study on through the research being exploratory.

Literature Review

a. Abortions

Much of the way of the rights to get abortions has been a topic of discussion, disputed and challenged on if a woman has the right to abort a child or not. This has especially made it harder for minorities to also have access to get an abortion. This is a huge problem for women in some states that have overturned Roe vs Wade policy in which (Banu, 2025) brought up the

difference that women of higher class have a better way of accessing health insurance than someone who is from lower class who has limited resources to protect themselves from the risks from an abortion. Something that the author raises awareness of is the importance of women having the right to abortion because it gets to the point where the U.S is trying to remove someone's right to decide what they can do with their own body and let the state intervene that right. Furthermore (Banu, 2025) states that women could get into harmful situations and the U.S. forget about the rights of minorities in the situations of getting an abortion. This is seen through the main misconception of minority women, that they don't need access to abortions which is not true. As expressed, "60% of those who seek abortions are people of color" (Banu 2025, p.2). These misconceptions can create dangers in the way in which the health care system limits the support that is given to a population that is at high risk of getting affected from abortions who are in high need of it. On the ways in which the population has been affected they "encounter more challenges with abstaining an abortion, particularly if they live in a state that has severe abortion restrictions" (Coates et al., 2022, p.2). Overall there are misconceptions and particularly geographical implications that limit women of color to get access to the needs of the abortion and that they are at higher risk based on the state that they live in which they can have access to these services.

b. Mental Health

The access of mental health services can be also seen through the way of what distances these services people can access them. In the works of mental health literature on minorities (Cummings et. al 2017) explores the way in which access to mental health care services are distributed to high vs low income communities by exploring data and geographical analysis to

figure out the differences between the two. In comparison of communities in the U.S it reveals, "(42.5% [3382 of 7959]) of communities in the highest income quartile had a specialty mental health treatment vs 23.1% (1841 of 7959) of communities in the lowest" (Cummings et al., 2017, p. 479). This leads to a great disparity in comparing the percentages in the way of the higher class community having more access to mental health care facilities than the lower class who has a lower percentage of mental health care facilities. But on the other hand there were more facilities that offered mental health, "However, mental health treatment facilities were significantly more likely to be located in lower income than higher income" (Cummings et al. 2017, p. 480). In comparison to those two differences in who has the higher and who has the lower probability of getting health care services that are lower population is being affected much higher to the minimal amount of specialty treatment or buildings situated to give these services to the population and this can further cause the fact that if there is lower amount of the ways of access to these buildings the less amount of professional help can be provided due to staffing. If there aren't accessible mental health facilities that are closer to the areas where it is needed this will be less for racial minority women to get accessible mental health services this can in terms be very harmful.

Contexts on looking at the effects of mental health through having limited access abortions have been studied from (Coates et al., 2022; Ngo et. al., 2024; Doyle et al., 2023). Specifically in (Coates et al., 2022) studies have been made from the banning of abortions through Roe vs Wade. The impact that women have from abortion is through, "The increased stress of financial strain in raising a child one did not wish to birth has implications for parents' mental health" (Coates et al., 2022, p. 974). With investigating the impacts of mental health on

minority women like the black population through this article we further understand the risks if mental health is not treated by. With a society that has health care at higher prices and does not not accommodate those who come from lower level incomes can create a worse outcome. Similar to the point on mental health on women who have abortions in (Doyle et al., 2023) talks in the literature about the ways in which pregnancies and the decisions of having an abortion can have a toll on the mental health of women if not treated properly. "Waiting for an appointment to access abortion care or loss of access to abortion care, is associated with an increased distress, depression and anxiety symptoms" (Doyle et al., 2023, p. 150). If there is no proper care in the way of women needing the support that they need to make a decision that they made for themselves through having to wait for even an appointment to come through can increase a higher need for mental health services. In personal experiences in Seattle I've had points where I've had to wait to get mental health services and I've had to wait for several months to get an appointment. I've seen many people struggling to get services in general care. This is a concerning factor that should be taken seriously. Having limited spots of mental health in Seattle and connecting that back with how Abortions affect women's mental health should be studied further and be a gap that could be studied. Through the few studies that have been researched it is through the state of Washington as a blue state that permits abortions. Although abortions are legal in Washington state there is still a vast amount of need for better services to better suit residents. It expresses that, "sought care at other clinics that had limited availability or longer wait times, resulting in obtaining care at this clinic network later in gestation" (Riley et al., 2024, p. 6). Meaning that women have had to go a longer time of waiting to abort later in the pregnancy due to the ways of the effects of clinics that have had limited appointments correlated

with personal experience and through (Doyle et al., 2023) study that highlights the impacts of limited appointments.

Lastly another mental health aspect that is significantly important that is explored through this literature (Ngo et al., 2024) explains the great impacts of mental health that were raised from COVID -19 that created lasting impacts into minorities of this community through the specific community of Harlem through the spatial disparities of health impacts in this specific part of Harlem. In the reading it highlights, "Depression and anxiety rates have tripped in the U.S, with Black and Latino communities disproportionately affected" (Ngo et al., 2024, p. 2). This raises concerns on the minority community with the impact of Covid had on mental health and is still a staggering effect due the amount of how financially, minorities have been impacted more in the uncertainty of the pandemic. Due to the economic impact on minorities this is another way in which minorities aren't able to afford the services that they need especially mental health services. To be able to prevent effects of COVID-19 on mental health in minorities (Ngo et al., 2024) literature studies that way in which mental health services are incorporated into low income housing as a study in Harlem.

The gaps that I have understood through my research are that through the ways of mental health services in the minority population of the effects of women's mental health through (Doyle et al., 2023) is far more recent research and data happening in the topic of abortions through the way of Roe vs. Wade. But on the other hand while (Ngo et al., 2024) literature talks about the way in which covid-19 mental health of minorities of how it could help in the future but there is not as recent studies done on data of mental health research on minorities except this literature since it went more in depth as a case study. In addition to Riley et al. (2024) talking about the

effects of clinics and the amount of need for abortion since Washington is a blue state but dismisses the fact of mental health in the effects of this. In terms of doing a study on perspectives of women within Washington state can fit into getting perspectives on people in Seattle on the **Research Question How does getting an abortion affect mental health for racial minorities** in rainier Seattle? Another gap is also outdated research done on study of health care systems effects on minorities being able to access care and their responses in (Rapp et al., 2021). As reference, "We used 9 waves of the AAMC survey waves conducted from December 2024 to January 2019" (Rapp et al., 2021, p. 1797). Data that is used is from 2014-2019 which is concerning because there is not enough research being done for this topic to help support minorities to be able to get access to healthcare and prove the need of care.

Methodology

Purpose of Research

The purpose of this research is for an exploratory approach to be able to see the cause and effects of the relation of having access of abortions and mental health services in addition to how it impacts mental health. By doing interviews with racial minorities who live in the city of Seattle in the neighborhood of Rainier there will be the outcome of getting to know the perspectives of the residents in that area to spatial geographic health disparities that are faced in Seattle. Through my experience in living in Seattle I have also faced problems of having trouble accessing health care support and other minorities as well that I know having to wait for an appointment to be able to access the needs of getting mental health. There is also the problem of distance when trying to access a clinic especially when there are no appointments in a certain location to then having to figure out how to travel from my house up to where the clinic is located which is pretty far due to the effects of low staff. Even when Seattle tries to figure out a

way to close the gaps of healthcare disadvantages they've made people travel from large distances to get to seattle center to be able to get to a healthcare fair where minorities are able to get free access to health care services only once a year for 4 days. Which is not enough help when it comes to people who need urgent access to health care or abortions needs, especially when there's a huge amount of minorities coming into the fair and having to wait long hours to gain access to their needs. Leading on to that I will collect the interviewees specifically in the clinic of Planned Parenthood Central District Health since it's the one clinic that can be close to the neighborhood of Rainier although this neighborhood still has the problem of distance because it's within the neighborhood of Capitol Hill. Through the process of collecting these interviewees I will directly chat with the faculty in Planned parenthood to be able to access the people who come from the neighborhood of Rainier.

Population

With the population of Seattle minorities I will focus on interviewing for one neighborhood which is Rainier. The reason for which to choose the neighborhood in Rainier is because it has one the most impacted by health disparities in Seattle referred from the data of the 2020 census tracts in Seattle for racial and social equity. The Health Disadvantage Index of the city of Seattle explained in Canxoneri et al. (2023) states that it has the worst quality of health disparity than any other part in Seattle. This neighborhood is made up of a huge population of minorities which will help in trying to answer the research question on **How does getting an abortion affect mental health for racial minorities in Rainier Seattle?** For the population that is being populated in Rainier will cover the racial identities of Latinos, African American, native hawaiians and asians.

Units of Analysis/Sampling

For the Unit of Analysis it will be interviewing people in groups to be able to have a way in which I can separate each group into their own identity groups of latinos, black, native hawaiians, asian etc. The sampling method will be probability sampling to ensure that when choosing the interviewees that are being chosen that they aren't none so that there can be an accurate way of representation in the stratified sampling method. For the Sample Size the estimated amount will be of 50 people to be able to keep a concise number of responses from all racial minority sectors to make sure the array of my responses can represent as many races in the interview process as possible. Through stratifying the group using the stratified method each group by racial context through the help of non probability sampling by selecting the interviewees based on subjective racial groups. This will be done by dividing the sample of 50 into 5 groups including 10 people for each racial group including for latino, black, native hawaiians, asians and native americans. There will also be an option for individuals who do not want to talk in a group to be able to have to talk one on one in person so that they feel comfortable talking about sensitive topics such as abortions and mental health.

Mode of Observation

The main mode of observation for the study will be doing a qualitative interviewing with the population chosen in the Rainier neighborhood. For doing qualitative interviewing in the research it will be face to face to be able to talk to the people in groups about how they share experiences in Seattle with struggling with access of abortions and how that has affected their mental health in the time of being in this neighborhood. The reason why qualitative research is a better option for a study like this is so that the voices of racial minorities can be heard. Examples

of studies that went well with studying racial minorities through the effect of health disparities was through Culhane-Pera (2021) where it explained their perspectives. Through the collection I do through the responses of interviewees I will be able to use it as my units of observation of observing individuals' impact on mental and abortion access by the help of the interview questions that are on the appendix.

Variables

The first variable is identified as income, a big factor to be able to access services of mental health and abortion services due to the cost of being able to get accounted for. For racial minorities this can be the greatest impact on income factors to be explained in Rapp et al. (2021) where the Black population is most affected by cost barriers to be able to access to health which can negatively affect this population. This overall supports the importance of the variable to be able to see the effects of access to abortion and mental health has on the income of the individuals to be able to access the support that they have through how they have to pay for the use of services. For Operationalization this will include an appropriate distribution of income scale so that they do not overlap income scales so that a person does not fit into one category scale of income. This will be measured in an interval to show scales of income. The validity of face to face has a high validity by being able to be clear about what specific range of income through the use of interval scales and straightforwardness by asking the question about income due to previous knowledge. For criterion validity it would be low validity since the income scales are not exactly for the interval scale is not supported by annual income scale listed in the state of Washington due to only having data by family household income.

Next variable is age which is commonly defined when a woman is pregnant and listed when wanting to get an abortion or mental health service. Through the study of Riley et al. (2024) age is something that is identified in the data for which range of ages has the most getting an abortion in Washington state. Through age there can be clear definition of what age group is a component to how mental health is being affected from an abortion. Through operationalizing age groups will be equally portioned without subject of bias which age will be most probable to have an abortion and not be able to get mental health services. The starting age to be able to qualify is 13 entering the teenager stage. Face validity will have a high validity for how straightforward it will be for the interviewee to think of their age through the simple question. For content validity age would be low due to how there will be various responses of questions and won't vary very specifically towards age there is only one question measuring the way to identify the individual of their age. Lastly, Criterion validity because the scales are based on a standard of scaling age.

Another variable will be health coverage in the meaning of health coverage is the way in which the individual is being able cover for expenses through the way of insurance. In the way for women to be able to access the services of abortions to make it common to have some sort of medicaid in Riley et al. (2024) cover's the services but some only cover a portion of the service. Through the way in which some health coverage could only cover a portion this is something that can be concerning for the individual to be able to access the service of abortions similar to how income affects being able to pay for these services which are of a pretty large expense. For operationalization for the variable of health coverage of the way of responders to be able to give the interviewees a way to simply respond with what category they fit into how they can cover

expenses through some sort of insurance through answering "Half coverage", "fully coverage", and "little or no coverage". Through examining face to face validity it will be straightforward to examine the measurement is trying to do and understand for the individual to be able to identify the coverage since they are getting services in the clinic.

The variables of the country of birth and race are intertwined to be able to measure and see the way in which race affects healthcare disparities. As seen through all of these (Rapp et al., 2021; Banu, 2025; Coates, 2024; Culhane-Perra, 2021; Cummings et al., 2017) express the way of racial minorities have been affected negatively through the ways of health disparities through the variable of race. Through the operationalization of country of birth it will provide interviewers to be able to say where they were born in this case they can say whatever location with a level of measurement being nominal as just a named variable. In face to face validity it will be high because the interviewers can identify specifically their country of birth and race. Content validity will be high due to how the measure captures the way the study is identifying racial minority disparities which race and country of birth both due.

Mental health is another part that is measured to be able to see the impacts of mental health of individuals. For mental health in conceptualization mental health is an important variable that needs to be measured since racial minorities are disproportionately affected due to not being able to get abortions through how studies have been gone through this in (Coates et al., 2022; Ngo et al., 2024; Doyle et al., 2023). Mental health is a pivotal way to determine the wellbeing of racial minorities and needs to measure the way in which women are being affected from access to these services. For operationalization mental health variables will be measured to

be able to provide a way to demonstrate the state of the mental health individual through a nominal way to be able to get a response to how their mental health is doing based on abortions.

Distance is another variable to measure the way of looking at the distance that a rainier residents have to deal with that needs to be taken into account when the abortion facility clinic is located in capitol hill and there are various distances that are within a big neighborhood as rainier. On conceptualization some of the studies have incorporated the way of how distances of abortions clinics are first is through Riley et al. (2024) where out of state people who are not able to access abortion clinics are. But it still leaves out the people who live within Washington which makes the need of having a variable to measure the distances of people to abortion clinics. For operationalization the distances of the distances will be measured in an ordinal process to be able provide individuals a scale for the number of minutes it takes them to travel from the place that they live in the neighborhood to the abortion clinic in capitol hill.

The last variables are abortion stigma and mental health stigma, these two variables cover the external factors of racial minorities that prevent them from services of abortions and mental health. Those external factors can be the fear of families going against their judgement and morals. For conceptualization abortion stigma from personal knowledge as being a racial minority abortions can be a heavy topic for families to be able to have acceptance over their family member getting an abortion since it goes against religious practices and family members' way of instilling in family members to have kids to let them die. This can be extreme pressure for those racial minorities to make a decision on abortion and affect them mentally. Which also leads in to mental health stigma where in conceptualization to the variable from personal experience is that for mental health as a racial minority is that when you get mental health

services you are thought be weak and should be strong in addition to that you as person should be able to be in control of our emotions rather than getting mental health support. For operationalization will be a measure of a nominal measure categories to describe mental health wellebeing.

Next is going over the construct validity and also look at reliability. First, the reliability of researchers is consistent with the amount of information provided about racial minorities barriers in Healthcare although there are still gaps that I've identified between the writing that researchers have done. Next the reliability of the researcher is to take into consideration the way of collecting the responses that are interviewed that should be anonymized due to privacy. Next, trying to gain a relationship with me as the researcher and the individuals that are being researched to make sure that the fluidity of the interview can go well to create a consistent trend of interviewing each group to be able to provide me with the responses that the interviewer is comfortable talking with me about. Lastly for the researcher and future self the reliability insured in this is when collecting responses of the interviewers that they are well documented to best use them to be able to help the cause of determining the barriers of health care and future use to be able to build upon the study. In the construct validity of the variables they all overlap to determine the next outcome to figure out the disparities in women. First Income is the first variable covered that overlaps with figuring out how individuals fit into the way of getting health coverage because income depends on being able to get this to further measure the disparities in getting the services. Another factor is race and country of birth both help relate to the ways of helping cover the individual's way of origin directly the way in which provides a construct of how the study is mainly focused towards looking at racial minorities in the neighborhood of

rainier. This also builds off lastly with mental health stigma and abortion stigma for the way to be able to measure external factors of cultural relations which correlates with background as race and country of birth.

Fig 1: Table of Variables

Variable Type	Conceptualization	Operationalization	Scale of Measurement
Income	A factor that determines how an individual is able to enter in the health insurance for health coverage	The study will include a question about annual incomes for the people as an example \$0 0-\$20,999 \$21,000 - \$40,999 \$41,000 - \$60,999 \$61,000 - \$80,999 \$81,000 +	Interval
Age	Is a factor that can be able to be able to look at what ages have outcomes of health	The study will be trying to include a exhaustive equal scale between the ages that are set to be:13-18, 19 - 24, 25 - 30, 31 - 36, 37 - 42, 43 - 50	Interval
Health Coverage	A factor that can be able determine how individuals are able to pay for healthcare services through insurance	The study will include responders for respond with "Half coverage", "fully coverage", "little to no coverage"	Ordinal
Country of Birth	A factor that can determine if an individual is able to receive health care coverage through where the country of birth is	The study will include for the responders to be able to fit into being born in the U.S, central america, south america etc.	Nominal
Race	A factor to determine which racial identity	The study will include their response to be able to	Nominal

	the individual to see the trends of racial groups affected by disparities in healthcare	say their racial minority race as: black, asian, native americans, native hawaiians, latino etc.	
Mental Health	A factor to determine the individual mental based on abortion	The study will include the response on the way of mental health is on abortion by adding a non categorical options for how the interviewer is feeling about there mental health: anxiety, depression, effect of health	Nominal
Distance	The factor to determine the distance between where the individual is from the neighborhood to the clinic that is located in the capitol hill.	The study will insure to ask the people the distance that they have to travel to abortion clinic: 2-5 minutes 6- 15 minutes 16-20 minutes 21- 30 minutes 30 +	Interval
Abortion Stigma	A factor to determine the participants' barriers in getting an abortion from cultural relations.	The study will insure about the way in which the interviewer can be put into categories non order of stigma topics raised cultural, religion, family	Nominal
Mental health stigma	A factor to determine the participants barriers in getting mental services from cultural relations	The study will insure about the way in which the interviewer can be put into categories of cultural,beliefs, family, partner	Nominal

Fig 2: Gantt Chart made in excel from quarter 1 9/24/2025 - quarter 3 6/1/2026



Appendix

The interview questions will first start with basic questions. What racial identity, their age to set the stage on the background of the individual and what their income is.

- 1.) How has the wait been to get an appointment with abortion services of abortions?
- 2.) How has your mental health been affected by the wait of getting access to abortion?
- 3.) How do you think services could do better to be able to meet your specific needs?
- 4.) What is the mental health and abortion stigma that you're affected by?
- 5.) How has health coverage from insurance affected the way you have been able to get into access to abortion services?
- 6.) How does stigma affect the way in which you are able to access services in mental health and get an abortion?
- 7.) How much time does it take you to take you to a distance to get to the abortion clinic?

References

- Banu, J.T. (2025) 'Fetal Personhood and Access to Reproductive Rights: Power and

 Precarity in Post-Roe America', *Journal of International Women's Studies*, 27(1), pp. 1
 15. doi:
 - https://link-gale-com.offcampus.lib.washington.edu/apps/doc/A829792795/GIC?u=wash main&sid=summon&xid=9471254a
- Coates, E.E., de Heer, R., McLeod, A., Porter, S.C. & Hoffman, S.B. 2024, "Shouldn't Nobody Make a Woman do What they Don't Want to do with their Body": Black Women's Reactions to the Supreme Court's Overturn of Roe v. Wade", *Journal of Racial and Ethnic Health Disparities*, vol. 11, no. 2, pp. 968-979. doi: https://doi.org/10.1007/s40615-023-01577-7
- Culhane-Pera, K. A., Pergament, S. L., Kasouaher, M. Y., Pattock, A. M., Dhore, N., Kaigama, C. N., Alison, M., Scandrett, M., Thao, M. S., & Satin, D. J. (2021). Diverse community leaders' perspectives about quality primary healthcare and healthcare measurement:

 Qualitative community-based participatory research. *International Journal for Equity in Health*, 20(1), 226–226. doi: https://doi.org/10.1186/s12939-021-01558-4
- Cummings, J. R., Allen, L., Clennon, J., Ji, X., & Druss, B. G. (2017). 'Geographic Access to Specialty Mental Health Care Across High- and Low-Income US Communities'. *JAMA Psychiatry (Chicago, Ill.)*, 74(5), 476–484.doi:
 - https://doi.org/10.1001/jamapsychiatry.2017.0303
- Canxoneri, D., Carnell, P. (2023). 'Racial Social Equity Index Users Guide' Available at:

- $https://www.seattle.gov/documents/Departments/OPCD/Demographics/RacialSocialEquit\\ yIndexUsersGuide 2023.pdf$
- Doyle, C., Che, M., Lu, Z., Roesler, M., Larsen, K., & Williams, L. A. (2023). Women's desires for mental health support following a pregnancy loss, termination of pregnancy for medical reasons, or abortion: A report from the STRONG Women Study. *General Hospital Psychiatry*, 84, pp. 149–157.

https://doi.org/10.1016/j.genhosppsych.2023.07.002

- Ngo, V.K., Vu, T.T., Levine, D., Punter, M.A., Beane, S.J., Weiss, M.R., Wyka, K., Florez-Arango, J.F. and Zhou, X. (2024) 'A multisector community-engaged collaborative for mental health integration in primary care and housing developments: Protocol for a stepped-wedge randomized controlled trial (the Harlem Strong Program)', *BMC Public Health*, 24(1), pp. 1-13. doi: http://dx.doi.org.offcampus.lib.washington.edu/10.1186/s12889-024-20026-6
- Rapp, K. S., Volpe, V. V., & Neukrug, H. (2022). 'State-Level Sexism and Women's Health Care Access in the United States: Differences by Race/Ethnicity, 2014-2019'. *American Journal of Public Health (1971)*, 111(10), pp. 1796-1805. doi: https://doi.org/10.2105/AJPH.2021.306455
- Riley, T., Fiastro, A. E., Benson, L. S., Khattar, A., Prager, S., & Godfrey, E. M. (2024).

 Abortion Provision and Delays to Care in a Clinic Network in Washington State After Dobbs. *JAMA Network Open*, 7(5), pp. 1-12

 https://doi.org/10.1001/jamanetworkopen.2024.13847

