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Ways of reducing the stigma of infertility: Views of infertile women and their herbalists

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Abstract

Infertility has debilitating effects on couples, especially for women and in pronatalist cultures. This study explored ways of reducing stigma from infertility in Ghana. Thirty infertile married women were interviewed: 15 each from the North-East and Ashanti regions. Ten herbalists were interviewed: five from the North-East, two from the Ashanti, and three from the Greater Accra, regions. A semi-structured protocol was used. A phenomenological study design was employed to explore experiences and views and thematic analysis was used: coding and analysing all this data, to identify themes. Ways of reducing stigma were suggested at different levels: society, community members, herbalists, and infertile women. The women and herbalists suggested that public education was necessary to avoid certain misconceptions about childlessness such as wombs being removed spiritually by others due to jealousy or envy. They stated that the community can be sensitized to the effects of stigma such as perceiving victims as cursed and useless. Women in the North-East region suggested they should be empowered and assisted financially to establish their own businesses. All the herbalists pledged their unflinching support for comprehensive public education and expressed their readiness to partake in the campaign to curb the stigma. Most Ghanaians have limited knowledge of the causes of infertility, resulting in stigmatization. Most people do not know that infertility has some unexplained or natural causes and, therefore, attribute all causes to spirits, abortions, or both. It is essential that communities are educated on the causes and treatment of infertility as well as on how they can support such women and help improve their well-being. (*Afr J Reprod Health* 2021; 25[2]: 110-119).

Keywords: Stigma, infertility, women, pronatalist culture, explanation, Ghana

Résumé

L'infertilité a des effets débilissants sur les couples, en particulier pour les femmes et dans les cultures natalistes. Cette étude explore les moyens par lesquels la stigmatisation résultant de l'infertilité peut être réduite au Ghana. Trente femmes mariées infertiles ont été interrogées: quinze des régions du Nord-Est et d'Ashanti. Dix herboristes ont été interrogés: cinq du nord-est, deux de la région d'Ashanti et trois de la région du Grand Accra. Un protocole semi-structuré a été utilisé. Un plan d'étude phénoménologique a été utilisé pour explorer les expériences et les points de vue. Une analyse thématique a été utilisée: codage et analyse de toutes ces données, pour identifier les thèmes. Des moyens de réduire la stigmatisation ont été suggérés à différents niveaux: la société, les membres de la communauté, les herboristes et les femmes stériles. Les femmes et les herboristes ont suggéré que l'éducation du public était nécessaire pour éviter certaines idées fausses sur l'absence d'enfant, telles que les utérus enlevés spirituellement par d'autres en raison de la jalousie ou de l'envie. Ils ont déclaré que la communauté peut être sensibilisée sur les effets de la stigmatisation telle que la perception des victimes comme maudites et inutiles. Les femmes de la région du Nord-Est ont suggéré qu'elles devraient être autonomisées et aidées financièrement à créer leurs propres entreprises. Tous les herboristes ont promis leur soutien sans faille à une éducation publique globale et ont exprimé leur volonté de participer à la campagne pour enrayer la stigmatisation. La plupart des Ghanéens ont une connaissance limitée des causes de l'infertilité, ce qui entraîne une stigmatisation. La plupart des gens ne savent pas qu'il existe des causes inexplicables ou naturelles de l'infertilité et attribuent donc toutes les causes aux esprits et / ou aux avortements. Il est essentiel que les communautés soient éduquées sur les causes et le traitement de l'infertilité ainsi que sur la manière dont elles peuvent soutenir ces femmes et contribuer à améliorer leur bien-être. (*Afr J Reprod Health* 2021; 25[2]: 110-119).

Mots-clés: Stigmatisation, infertilité, femmes, culture pronataliste, explication, Ghana

Introduction

The concept and experience of infertility or childlessness among couples are as old as the human race and a global health concern^{1,2}. In some

studies, 8%-12% couples experience infertility worldwide³. In sub-Saharan Africa, about one-third of couples are unable to conceive even after repeated attempts¹. The overall infertility rate in sub-Saharan Africa is 12.7%-16.9%⁴. Although

people marry for several reasons, according to some studies^{5,6}, the main reason for marriage is childbirth to ensure family continuity. For example, in Ghana, society expects couples to have children; hence, childless couples are likely to encounter infertility-related challenges⁷.

In other studies¹, children are highly desired, and parenting is culturally obligatory. Therefore, couples try persistently to have children, to feel socially accepted. Consequently, some couples indulge in adultery, accept other wives, or adopt children^{1,6,8,9}. Although some of these ways are socially accepted, others are unacceptable or ridiculed in some cultures; an example of the latter is adoption^{1,10}. According to Bharadwaj, adoption is undesirable because it makes infertility public and visible¹⁰. According to some studies¹, adoption under Islamic law is prohibited and culturally undesirable. In a qualitative study by Nachinab, Donkor, and Naab on the perceived barriers to child adoption among infertile women in Northern Ghana, adoption had no significance for couples. Husbands preferred biological children to adopted ones. Respondents revealed adoption was psychologically dissatisfying and a sign of accepting defeat, of failing to have biological children. Adopted children are culturally prohibited from inheriting property¹¹. This is because most families value blood relations; to such families, they bring respect and dignity^{11,12}. In other studies¹², children in general are a source of security, wealth, happiness, and marital stability.

The consequences of infertility are numerous; the gravity largely depends on the context. For instance, according to some studies^{7,11,13}, infertile couples in sub-Saharan Africa experience depression, suicidal ideation, insults, stigma, lack of sexual desire, and decreased social recognition. Childlessness is a tragic condition for all couples; women suffer and are blamed the more.

According to Inhorn, in some societies, such as the Egyptian, infertile women are believed to harm others' children out of envy; such women are usually abandoned in their old age¹. In the same study¹, in-laws mount pressure on their daughters-in-law to seek treatment or face their wrath. This pushes some women to indulge in all kinds of activities including adultery, in their quest to have

children^{1,9}. Couples, especially wives, comb and try all possible means in their pursuit for a child, especially in pronatalist societies. They seek medical, traditional, herbal, and spiritual intervention^{8,14}. Some try all forms of life-threatening means, such as drinking concoctions, in their quest for children. This is because women are always pressurized to find solutions to their childlessness¹¹. Therefore, unsurprisingly, women appear to carry the main responsibility for infertility globally¹.

Although modern technologies have revealed that male infertility contributes to more than half of all causes of childlessness and that their conditions are the most difficult to treat¹, the blame is still on women^{1,6}. Such women are forbidden from attending some social and traditional ceremonies⁹.

Irrespective of which spouse is responsible, childless couples are highly stigmatized in sub-Saharan Africa⁶. Such couples are unable to hold or assume certain positions because they are perceived as being irresponsible⁶. To avoid the shame and stigma, most men indulge in extramarital affairs or get second wives, in an attempt to prove their fertility⁶. Some women pretend to be fertile under certain circumstances, to avoid stigma¹⁵. This is because, according to some studies⁶, infertile persons are stigmatized even after death. Stigma is deeply rooted at the micro-level in society since they adhere to and embrace traditional cultural norms more. Therefore, childless women are constantly reminded about their situation in those settings, making their hidden conditions visible.

The difference in stigmatization and blame in sub-Saharan Africa is due to the patriarchal nature of the African culture characterised by gender inequality¹⁶. A study by Atijosan and colleagues explored the knowledge and perceptions regarding infertility among university students in Ile-ife in Nigeria. The majority of these students (57%) had poor knowledge about infertility; they linked infertility to female promiscuity and conditions related to only women. Further, more than half of the respondents believed that infertility can be completely prevented if women are virgins before marriage. This indicates that even some educated people have little knowledge on infertility,

suggesting that culture and tradition form the opinions of many people, irrespective of their educational backgrounds.

Apart from societal pressures and labels, in most studies^{11,13}, infertile couples experience mental health challenges. Being stigmatized is known to have negative consequences in general¹⁷, and being stigmatized on the basis of infertility is no exception. Stigma worsens the plight of infertile women by adding to their stress and discomfort. Several studies that have focused on the consequences of infertility have confirmed the immense stigma in different societies^{18,19}. As Clair notes, it is essential to identify the ways of destigmatization¹⁷. This study intends to highlight possible solutions to curb stigma associated with infertility. To explore ways of reducing stigma associated with infertility as proposed by infertile women and their herbalists.

Theoretical framework

This phenomenon can be explained by the theory of stigma proposed by Erving Goffman. The concept of stigma refers to an attribute that discredits and devalues a person; it is based on a process of perception and attribution²⁰. Stigmatized people are perceived as special and different from others in a society or community. This distinction arises when people are socially compared to each other, and to the norms of that society. For example, infertile women appear different from child-bearing women because they have not attained the status of motherhood which society expects of them. Hence, the notion of stigma emerges from the norms of a society. As stipulated by Bandura, a person cannot be taken out of context and analysed because one is highly influenced by one's environment or society²¹. This is because the environment determines the norms, sanction regime, and penal codes in group behaviour. Furthermore, the environment defines and ascribes causes to conditions, illnesses, and treatments. Therefore, explanations of stigma are generated from the culture. In pronatalist societies, childlessness is unacceptable, and victims are perceived as deviant and ungodly¹⁹. The extent and intensity of stigma depend solely on the society and how people perceive the condition. Since Westerners and Africans view and understand infertility very

differently, the intensity and extent of stigma vary. Due to the negative connotations attributed to infertile women among Africans, such women are perceived as different from the norm, as anomalies. How can stigma be reduced or prevented? Will a difference emerge if people attend awareness programmes? Can society be persuaded to eliminate some unhealthy norms, to reduce stress and pressure? While some norms help shape a society, others can cause intense stigma; eradicating the latter is imperative.

Clair distinguishes three disciplinary approaches to stigma: at the micro-level (psychological), meso-level (social psychology and cultural sociology), and macro-level (sociology)¹⁷. Each of these levels tackles different kinds of causes, contexts, and consequences of stigma, as well as identifies different ways of reducing stigma. Clair urges us to bridge those different approaches. We contend that, when looking at the everyday experiences of stigmatized people, it is possible to identify all these levels of stigma in operation.

Methods

Study design

A phenomenological study design was employed to explore the herbalists' and women's experiences and views on how to curb the stigma. To better appreciate and understand the ways to curb stigma, the meanings constructed from the phenomenon were explored using qualitative interviews with persons having first-hand experience of infertility. This paper explores the views of the infertile women and their herbalists on ways of curbing the stigma associated with infertility.

Study location

The study areas were the North-East, Ashanti, and Greater Accra regions of Ghana. To capture the traditional and cultural aspects of the phenomenon, I (the first author) visited only rural dwellings. The East and West Mamprusi municipalities form the northern location. East Mamprusi is situated in the north-eastern part of the Northern region, sharing its west boundary with West Mamprusi²². Kwabre East and Kumasi Metropolitan assembly form the Ashanti region, the most densely populated in

Ghana²³. Sakaman in the Accra metropolitan District was the location in the Greater Accra Region²⁴. The people in the East and West Mamprusi municipalities in the North-East region speak Mampruli. Polygamy is a common practice among members of the Islamic community and those who align themselves with African traditional religion²⁵, and they practise the patrilineal system of inheritance²⁶. The people in the Ashanti region are part of the Twi-speaking Akan ethnic group; they are mostly Christians and practise Christian monogamy and the matrilineal system of inheritance. Those in the Greater Accra region speak Ga and have a patrilineal system of inheritance²⁷.

Participant selection

The first author first established informal contact with key community stakeholders (family heads), who helped identify herbalists. However, the first author directly contacted herbalists in Accra. Women who visited these herbalists for treatment were recruited via their herbalists. The study and purpose were discussed with these herbalists, who then informed their clients. The names and addresses of potential research participants were obtained from these herbalists, and these women were later contacted and interviewed in the comfort of their homes (in the two areas). Some women provided the names of others with similar problems in the vicinity. In the West and East Mamprusi municipalities, 15 Muslim women aged 19 to 41 were interviewed; they had been married 4-16 years. In the Kwabre East and Kumasi Metropolitan assembly in the Ashanti region, 15 women aged 21-43 who had been married for 1-10 years participated; of these 15, 13 were Christians and 2 Muslims. I also interviewed some herbalists in both areas and three herbalists in the Greater Accra Region.

Data collection

In-depth face-to-face interviewing was the main data collection method. Thirty women were interviewed, 15 in both regions; of the 10 herbalists interviewed, 5 were from the North-East region, 2 from the Ashanti, and 3 from Greater Accra regions. The first author conducted all the

interviews, with the help of an interpreter. A considerable amount of time was spent in establishing rapport, before the commencement of the interviews, which made interviewees feel free to express their concerns and grievances. This helped dissipate tensions in terms of class and cultural differences.

In the Ashanti region, the interviews were in Twi, and the researcher needed no translation since she is a native speaker of the language. The interviews in the North-East and Greater Accra regions were conducted in English. However, the northern interviews were conducted in English, with the help of an interpreter. The interpreter is a native speaker of the Mampruli language and a graduate teacher. The interviews were tape-recorded, with the permission of the participants. The participants also granted permission to the interviewer to make notes. These notes covered the observations, demeanour, mood, and body language of the participants— aspects the recorder failed to capture. The interviews lasted 45-60 minutes.

Data analysis

The data analysis was carried out inductively. After listening to the recordings repeatedly, I (the first author) transcribed verbatim from Twi to English recorded interviews from the Ashanti region; the data from the North and Greater Accra were already recorded in English. The final size of the data corpus was 386 pages. After reading repeatedly through these transcripts, I extracted, identified, and coded the main themes. Having extracted statements with meanings that emerged in most transcripts, I established the core themes. Themes that emerged fewer times or merely once were also considered in the analysis. For this paper, passages which dealt with ways of reducing stigma associated with infertility were selected for closer analysis.

Results

The findings show how worrying and intense the stigma is and how keen the participants wish it can be curbed. As indicated by Goffman, stigma is a general characteristic of social life that complicates the interaction between those who share the stigma

and those without the stigma. Different categories of stigma exist, depending on the society because most people experience stigma in relation to an aspect or phase of their life; in this case, a state of childlessness. The intensity of the stigma usually depends on the explanations society ascribes to infertility. Infertility is a discreditable attribute, which those involved try to hide in pronatalist societies such as Ghana; childlessness can be compared to physical deformity because of its significance. Infertility also blemishes one's character because of the perceived causes as such curses, witchcraft, and abortion. Stigma maintains its roots across generations because of inadequate information. For instance, no biomedical explanations of infertility existed during the olden days; hence, childlessness was attributed to curses and witchcraft. As a result, victims were perceived as dangerous to associate with because of perceived consequences. In some studies, evolutionary causes of stigma serve a sociobiological function, thereby excluding individuals with certain unwanted traits or behaviours that could threaten a community¹⁷. Now, the advancement of technology proffers better ways to handle such situations rather than secluding and stigmatizing victims. This switch is imperative because stigma devalues and breeds more mental health challenges.

The ways of reducing stigma suggested by the interviewees were divided into four, based on the roles played by four groups: society, community members, herbalists, and infertile women.

Role of society: education

The interviewees thought that the stigma related to infertility partly stems from the widespread misconceptions of the causes of infertility, such as the belief that infertile women are cursed or that their wombs have been removed spiritually. Therefore, almost all the women and herbalists advocated public education on the aetiology and effects of infertility. According to them, this will create awareness and clear misconceptions of infertility. They stated that, if the society is educated, then the society or community will realize that infertility can happen to anyone. This education can serve to reduce the social burden and stigma on infertile women.

Here are some examples of the interviewees' views on the importance of education:

"It's all education, and we as individuals also know that it can happen to anyone."

(a 45-year-old woman, Ashanti region)

"I believe people should be talked to and educated on infertility, and rather give hope to the victims that one day...they will be successful."

(a 67-year-old herbalist, North-East region)

"We have to talk to them and educate them...that it is God who gives, and childlessness does not mean they are not part of the world or that their lives have come to an end."

(a 35-year-old woman, North-East region)

One herbalist who is also a spiritual leader suggested the need for sex education in high schools. This, he stated, would guide students, especially adolescents, to realize the right time for, or whether they are qualified to indulge in, sexual activities. According to him, sex education would prevent unhealthy sexual activities and, thus, unwanted pregnancies and illegal abortions. This is in line with studies suggesting that illegal abortions cause infertility²⁸.

The onus of education of the populace against stigma was seen to lie on the government and stakeholders in various societies. The authoritative voice of such organs is needed to change the traditional views of community members.

"The Ministry of Health can organize workshops and train people...we can also use the media, traditional and social mediums to educate...pulpits can also be used to educate, to minimize the stigma in our homes."

(a 46-year-old herbalist, Ashanti region)

Role of herbalists: educational campaigns

Some herbalists were passionate about infertility and the ordeal of the victims. They pledged their unflinching support in the fight against this stigma. With their experience and knowledge, they were awaiting an opportunity to educate the community.

"Public education can help...if I am invited or given the opportunity to talk to them...I will let

them know there are varied causes, and they can be treated...I can also provide education on some of the dangers and causes of infertility.”
(a 70-year-old herbalist, North-East region)

“We can organize groups of people and train them...and these trainees can sensitize and conduct a public campaign on the effects of stigma...I personally use topics like this for the main sermons in the mosque on Fridays to educate congregants.”

(a 60-year-old herbalist and Imam, North-East region)

One herbalist suggested that counsellors need to have a strong bond and voice to seek the necessary funds; that would help them offer a comprehensive and holistic package on reproduction-related issues.

“I recommend the possibility of counsellors coming together as a great force and together get the needed funds to have a more systematic campaign because to me...this is even more important than the HIV/AIDS campaign...with the right education, it will help men and women to even know whether or not to indulge in sex...so that becomes a holistic package than just ABC...in my church, we have added a D...meaning direct sexual energy into meaningful ventures.”

(a 67-year-old herbalist, Greater Accra region)

Some herbalists specified that they counselled and encouraged these women, besides treating them:

“When someone comes for treatment, the first question is asking the person what they will do in case they are unsuccessful, and from their response, we try to psych them up, encourage them, and awaken them to the fact that children even refer to them as mothers...and, hence, they are already mother figures.”

(a 51-year-old herbalist, Greater Accra region)

These misconceptions can be dispelled if community stakeholders rise up, take charge, and educate community members.

“I think the community should be sensitized...they need to be talked to...The National Commission for Civic Education

(NCCE)...can take that up and educate the inhabitants...they should explain that childlessness isn't the fault of the victims because some are natural (sic).”

(a 38-year-old herbalist, North-East region)

Role of community members: empathy and support

Community members stigmatize infertile women mainly because the stigma has been passed on for generations. This perception has formed and shaped their world view; therefore, they stigmatize people without questioning the practice. These negative behaviours and attitudes have been rooted in their belief system, a feature that causes victims much pain and stress.

Some women suggested that, in educating the community, the approach should provoke them to be empathetic. According to them, that will make people reflect on issues and avoid stigma.

“People should put themselves in their shoes, and they will know how it feels...such things will prompt people to think...this is important because...what do you think is killing so many people in the world...pressure...pressure is all that you hear around.”

(a 45-year-old woman, Ashanti region)

Most infertile women, especially housewives dependent on their husbands, face financial challenges. Due to the plight of these women, some husbands hardly provide for these women's needs; hence, such women look and feel worthless, sad, and stressed. The women, therefore, suggested that they be provided some financial assistance to help them start some business; that would keep them busy and feed themselves. This, according to them, would prevent them from seeking financial assistance from individuals, an act that would further worsen their plight and intensify the labels and name-calling.

“There could be financial support to groups, to enable us to go into small-scale businesses. This will keep us busy, occupy our minds, and will help us generate our own income. In this way, nobody can maltreat us just because of feeding and upkeep.”

(a 25-year-old woman, North-East region)

Role of the women: coping

One of the women quoted an African proverb, ‘‘no one drinks medicine on behalf of a sick person, no matter how much one may love that sick person’’. These women have a large role to play if they want to reduce the stigma and be productive in their communities.

These women suggested several ways of reducing stigma. Although some of these methods may be classified as coping strategies, these women viewed them as ways to avoid stigma. This is likely to be influenced by their belief systems, world view, and their understanding of their plight. For example, some stated they needed to be prayed for, to be blessed with children and experience motherhood.

‘‘We are not to insult infertile women...know that...they can also be blessed with a child one day...instead...you should rather pray to God on their behalf, to bless them with a child so they also have some happiness and joy.’’

(a 32-year-old woman, Ashanti region)

According to some women, they need to form groups in their localities to have a strong voice, to discuss issues of common interest, develop a sense of belongingness, as well as motivate and comfort themselves.

‘‘There is the need to form groups or associations that can be used to sensitize females or women who are victims of these circumstances, to understand that some of these things can be natural phenomena, and when they occur, they only need to be patient.’’

(a 25-year-old woman, North-East region)

This group can benefit from getting some funds to organise gynaecological examinations and health screening programmes, also to check their health status in general. This will improve their well-being, and perhaps help identify the reasons for their infertility:

‘‘Groups or associations can be formed, and that can help us identify our problems...that will enable us to find solutions medically or any other means to treat it so that we can also live longer like others with children.’’

(a 25-year-old woman, North-East region)

If such groups are formed, these women will get the opportunity to educate their colleagues who know nothing about infertility. Further, those who victimize themselves can also be empowered to refrain from such acts and make themselves useful in reducing the stigma others experience.

Stigma has existed since the beginning of time. Therefore, some women feel powerless in reducing the stigma.

‘‘I have no idea as to what can be done.’’

(a 19-year-old woman, North-East region)

Due to their childlessness, women mostly suffer at the hands of their husband’s families. Therefore, some women suggested the need for them (daughters-in-law) to have a cordial relationship with their mothers- and fathers-in-law. For the women, this could help reduce the stress and pain their in-laws mete out to them. Instead, these in-laws would hopefully sympathize with them. Hence, proper communication of the phenomenon is essential among members of the affected families.

‘‘While you plan to go into marriage...it will be good to recognize the in-laws...especially the father and mother of the man...regard, give them respect, and honour them. Try to socialize with them...so that in times like this...they can also sympathize with you.’’

(a 20-year-old woman, North-East region).

Discussion

In our data, four kinds of ways of curbing stigma were identified: these were society-level, community-level, and individual. These were in line with Clair’s presentation of the levels of destigmatization¹⁷. At the societal level, education was found to be an essential way to reduce stigma. Both the infertile women and their herbalists advocate intense education about infertility, to reduce preventable causes and the associated stigma. According to the majority of the participants of the study, public education and sensitization will clear misconceptions and perceived causes of infertility and help reduce the stigma.

On the community (meso-) level, the need for peer support and self-help was emphasized as

ways of tackling the negative consequences of stigma. Some participants suggested they form groups to discuss common issues of interest and to develop a sense of belongingness. They stated that that would improve their well-being and provide them a common voice. Through that, as some suggested, they can obtain some financial assistance, enabling them to set up their own business and cater for themselves. According to them, since they are jobless and solely dependent on their husbands and others, they have become a nuisance or burden to society. Some revealed that their husbands have abandoned them due to their condition, making them vulnerable; these women then seek financial assistance from others, intensifying the stigma and their plight. Furthermore, the need for the public to have empathy for the infertile women was seen as essential by some of the participants. They suggested that, when people become aware of the causes and feel the impact of the condition, their empathy would help curb the stigma. The onus of curbing the community-level stigma was seen to be partially on the infertile women themselves. For example, some women in the North-East region suggested the need for them to have a cordial relationship with their in-laws. They specifically stated that they, the daughters-in-law, should honour and respect their mothers- and fathers-in-law so that, in difficult moments, their in-laws would sympathize with them. This suggests that women feel uncomfortable and pressurized by their mothers-in-law when they, the daughters-in-law, are unable to conceive, a finding in line with studies by Hess, Ross and Gilillard¹⁴.

While a majority of the participants were able to mention some ways of reducing the stigma or mitigating its consequences, a few women, especially those who reside in the North, stated that they knew not how so big a stigma could be reduced or prevented. Some stated that the stigma would remain forever, in line with studies that state that infertile persons are stigmatized even posthumously⁶. Some also suggested that infertile women should be prayed for, in order that they experience motherhood. This is expected; infertile women rely mostly on religion, to cope with and seek solutions for their plight. This finding is in line with studies that treat religion as a remedy for

infertility⁸. At the same time, this may exacerbate the stigma, by implying that infertility is a consequence of spiritual failure.

The findings show that reducing stigma should occur on different levels. The need is clear for society to rethink how to reduce stigma. This is because most people lack knowledge of the causes of infertility; they merely conform to societal norms. Sex education can be incorporated in the education curriculum at the senior secondary level, to train students on reproductive health issues. It can help them clear misconceptions and wrong perceptions and, thus, reduce stigma. Since stigma is a perception and an attribution based on societal norms, society can revise and modify certain norms which fail to serve its people. Since stigma is embedded in belief systems, traditional leaders and stakeholders can impose some forms of punishment on culprits, because children are enculturated in communities, with time, these stigmas will be reduced or prevented. Thus, society measures could be the source of destigmatization on the community level as well.

Ethical approval

The study was approved by the Ethics Committee for the Humanities, University of Ghana (ECH 015/ 17-18), and the University of Eastern Finland Committee on Research Ethics (statement 21/2017). Participants gave their informed consent to participate in verbal or written form. Those who could not read opted for verbal consent; however, most of those who could read were also more comfortable with verbal consent. The researcher translated the consent form into participants' preferred languages. A cover sheet containing demographic information except for names was coded differently, to ensure confidentiality. The specific locations of the participants are unreported; otherwise, they could lead to easy identification.

Conclusion

From the findings, the debilitating effects of infertility on couples call for urgent education about infertility to curb the situation. Infertile women and their herbalists suggested education, public campaigns, prayers, financial assistance, respect for in-laws, and encouragement as key in curbing the

situation. According to them, education, public campaigning, and sensitization can help clear misconceptions about the causes of infertility. They revealed that creating awareness will facilitate the process of curbing the stigma; people will begin to understand and empathize with them. Furthermore, this will help educate society to refrain from distorted beliefs and misconceptions associated with infertility. This will consequently enlighten women on the need to seek some regular gynaecological services to prevent some of the avoidable causes of infertility such as unsafe abortions. These findings will help stakeholders and governments establish some measures to curb stigma.

Recommendations

More studies should focus on possible solutions to reduce the stigma associated with infertility. With such studies, more solutions can be proffered; with time, the rate of stigma will hopefully reduce.

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Availability of data and materials

The data are not publicly available because they contain information that could compromise research participant privacy/consent.

Contributions of authors

DOB conceived the idea and wrote the proposal. DOB and VH designed the study. DOB collected and analysed the data and drafted the manuscript. VH read through and made corrections. Both authors read through and approved the final version of the manuscript.

Consent for publication

Not applicable.

Competing Interests

The authors declare that they have no competing interests

References

1. Inhorn MC. Global infertility and the globalization of new reproductive technologies: illustrations from Egypt. *Soc Sci Med.* 2003;56(9):1837–51.
2. Roupa Z, Polikandrioti M, Sotiropoulou P, Faros E, Koulouri A, Wozniak G, Gourni M. Causes of infertility in women at reproductive age. *Heal Sci J.* 2009;3(2).
3. Kumar N and Singh AK. Trends of male factor infertility, an important cause of infertility: A review of literature. *J Hum Reprod Sci.* 2015;8(4):191.
4. Ericksen K and Brunette T. Patterns and predictors of infertility among African women: a cross-national survey of twenty-seven nations. *Soc Sci Med.* 1996;42(2):209–20.
5. Caldwell JC and Caldwell P. The cultural context of high fertility in sub-Saharan Africa. *Popul Dev Rev.* 1987;409–37.
6. Tabong PT-N and Adongo PB. Infertility and childlessness: a qualitative study of the experiences of infertile couples in Northern Ghana. *BMC Pregnancy Childbirth.* 2013;13(1):72.
7. Donkor ES and Sandall J. Coping strategies of women seeking infertility treatment in Southern Ghana. *Afr J Reprod Health.* 2009;13(4).
8. Burns LH and Covington SN. Psychology of infertility. *Infertil Couns.* 1999;3–25.
9. Gerrits T. Social and cultural aspects of infertility in Mozambique. *Patient Educ Couns.* 1997;31(1):39–48.
10. Bharadwaj A. Why adoption is not an option in India: the visibility of infertility, the secrecy of donor insemination, and other cultural complexities. *Soc Sci Med.* 2003;56(9):1867–80.
11. Nachinab GT, Donkor ES and Naab F. Perceived Barriers of Child Adoption: A Qualitative Study among Women with Infertility in Northern Ghana. *Biomed Res Int.* 2019;2019.
12. Dyer SJ. The value of children in African countries--insights from studies on infertility. *J Psychosom Obstet Gynecol.* 2007;28(2):69–77.
13. Fledderjohann JJ. 'Zero is not good for me': implications of infertility in Ghana. *Hum Reprod.* 2012;27(5):1383–90.
14. Hess RF, Ross R and Gililand Jr JL. Infertility, psychological distress, and coping strategies among women in Mali, West Africa: a mixed-methods study. *Afr J Reprod Health.* 2018;22(1):60–72.
15. Dyer SJ, Abrahams N, Hoffman M and van der Spuy ZM. Men leave me as I cannot have children': women's experiences with involuntary childlessness. *Hum Reprod.* 2002;17(6):1663–8.
16. Atijosan A, Adeyeye O and Ogungbaji O. Knowledge and Perception Regarding Infertility among University Students in Ile-Ife: A view through Gender Lens. *Covenant J Bus Soc Sci.* 2019;10(1).
17. Clair M. Stigma. *Core Concepts Sociol.* 2018.
18. Ofosu-Budu D and Hanninen V. Living as an infertile woman: the case of southern and northern Ghana.

- Reprod Health. 2020;17:1–9.
19. Ibisomi L and Mudege NN. Childlessness in Nigeria: perceptions and acceptability. *Cult Health Sex.* 2014;16(1):61–75.
 20. Yen S, Parmar DD and Lin EL, Ammerman S. Emergency Contraception Pill Awareness and Knowledge in Uninsured Adolescents: High Rates of Misconceptions Concerning Indications for Use, Side Effects, and Access. *J Pediatr Adolesc Gynecol* [Internet]. 2015;28(5):337–42. Available from: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-84953837483&doi=10.1016%2Fj.jpag.2014.09.018&partnerID=40&md5=b93d75a16a1fd467f5afe3d59d0ae9c4>
 21. Bandura A. The self system in reciprocal determinism. *Am Psychol.* 1978;33(4):344.
 22. Donkor AK and Waek BI. Community Involvement and Teacher Attendance in Basic Schools: The Case of East Mamprusi District in Ghana. *Int J Educ Pract.* 2018;6(2):50–63.
 23. Service GS. 2010 Population & Housing Census: National Analytical Report. Ghana Statistics Service; 2013.
 24. Ofosu B, Duku Mo, Asante Rb and Kojo Pd. Role of small and medium-scale enterprises in the economic development of Ghana (Perception of entrepreneurs in the Accra Metropolis) By. 2015;
 25. Lawson DW and Gibson MA. Polygynous marriage and child health in sub-Saharan Africa: What is the evidence for harm? *Demogr Res.* 2018;39:177–208.
 26. Tabong PT-N and Adongo PB. Understanding the social meaning of infertility and childbearing: a qualitative study of the perception of childbearing and childlessness in Northern Ghana. *PLoS One.* 2013;8(1):e54429.
 27. Odotei I. External influences on Ga society and culture. *Res Rev.* 1991;7(1–2):61–71.
 28. Kender EE, Yuksel G, Ger C and Ozer U. Eating attitudes, depression and anxiety levels of patients with hyperemesis gravidarum hospitalized in an obstetrics and gynecology clinic. *Dusunen Adam* [Internet]. 2015;28(2):119–26. Available from: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-84934298259&doi=10.5350%2FDAJPN2015280204&partnerID=40&md5=204cba112ec93bd2cb921ae7710e4569>.