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From Information Seeking to Social Support: Utilities of WhatsApp Group for Health Education and Postpartum Healing among CS Mothers in Nigeria

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ABSTRACT

Previous studies on computer-mediated communication have investigated the use of WhatsApp groups for health education, health communication, and behavior change, but no empirical study had documented the experiences of Cesarean Section (CS) mothers on their use of WhatsApp groups for health education, information seeking and postpartum healing. This study identifies the post-CS goals of mothers who joined Csection Mum Community WhatsApp group, examines the extent to which the group's activities satisfied those goals, investigates why they felt safe disclosing their personal health information in the group and explores the role of interpersonal empathic communication on their postpartum healing. Using Online Focus Group Discussion (OFGD) to collect data from twenty-seven CS mothers, and guided by some propositions of uses and gratifications, social penetration theories, and empathic model, the findings revealed that the WhatsApp group satisfied the mothers' informational, educational, experiential learning and social support needs. Their affinity with the group's activities influenced their spontaneous self-disclosure in the group. It was also found that interpersonal empathic communication improved the postpartum depression healing process of the mothers. It, therefore, recommends that hospitals (that operate on patients) empower adult mental health nurses or clinical psychiatrists to engage CS mothers and their caregivers (family members, spouses, etc.) in psycho-education, especially empathic communication, before discharging the mothers.

INTRODUCTION

Globally, at least one in seven women is at risk of postpartum depression (PPD)— a form of mood disorder that happens to women after childbirth (Mughal, Azhar & Siddiqui, 2021). This mood swing becomes more complicated in women who give birth through Caesarean Section (CS), especially the emergency CS option (Moameri, Ostadghaderi, Khatooni & Doosti-Irani, 2019; Tonei, 2019). When a new mother experiences PPD, she loses appetite, and sleep (insomnia), and becomes pessimistic, sad, and cognitively fatigued (Tolossa et al., 2020; Atuhaire et al., 2020). Women in this condition cope differently, using workable strategies such as religious, emotion-based, and self-denying strategies (Gutiérrez-Zotes et al., 2016; Azale, Fekadu, Medhin & Hanlon, 2018), interpersonal communication with others, self-social support and positive thinking (Tang, Zhang & Zhu, 2020). Empathic communication a form of emotional support that includes active listening, bonding, and self-feelings from people around is equally an essential coping mechanism woman with PPD adopt (Dennis, 2003; Friedman & Resnick, 2009; Tan et al., 2021).

Women with PPD symptoms also rely on internet-mediated communication (Romiszowski & Mason, 2013; Mahdi, 2014) such as WhatsApp, although evidence of such reliance is limited in the literature. Instead, scholars have mainly investigated the use of WhatsApp, an instant messaging application, for health communication and education between teachers and students, alongside between people and healthcare professionals. For example, Willemse (2015), as well as Coleman and O'Connor (2019), documented the experiences of South African undergraduate nurses on the role WhatsApp played in their

knowledge of public health education, while Mars and Scott (2016) together with Coleman and O'Connor (2019) evaluated the role of WhatsApp in medical education. Sukriani and Arisani (2020) proved the effectiveness of using WhatsApp group on breastfeeding practices among nursing mothers in Indonesia, while Yusriani and Acob (2020) examined the use of WhatsApp for behavior change among students of senior secondary schools, also in Indonesia. Pereira et al.'s (2020) inquiry revealed that using breast cancer-related WhatsApp groups among women with breast cancer was an effective intervention that enlightened women and enhanced their knowledge of breast cancer.

Moreover, Ganasegeran, Renganathan, Rashid, and Al-Dubai (2017) explored the perceived significance of WhatsApp usage for patients' mobile health management in Malaysia, while Calleja-Castillo and González-Calderón (2018) alongside Masoni and Guelfi (2020) separately discussed the role of WhatsApp in telemedicine, with emphasis on legal issues around it. For Dorwal et al. (2016), the impact of WhatsApp in managing communication and coordination outcomes (information sharing) among some Indian laboratory workers was more of scholarly interest; O'Sullivan et al.'s (2017), as well as Chan and Leung's (2018) separate inquiries, show that WhatsApp groups had become significant communication channels to practice e-medicine, but Bano et al. (2019) questioned how the social interaction and connection functions of WhatsApp could influence the psychological health of students in Pakistan. Other studies analyzed the role of WhatsApp-enabled communication in emergencies among selected surgeons in London (Johnston, et al., 2015), looked at how WhatsApp is used for surgical management in Italy (Nardo et al., 2016), presented the value of WhatsApp in consulting healthcare professionals on burn injuries children suffered in South Africa (Martinez et al., 2018), and explored the technological mobility and ubiquity of WhatsApp in providing information about eye health in deprived localities in India (Maitra, 2021).

A careful mapping of these studies shows that most of them concentrated on the roles and effectiveness of WhatsApp and WhatsApp groups on health education, communication, and behavior change. Despite the clinically-established PPD symptoms that mothers experience after childbirth, especially among CS mothers, limited attention is given to PPD in developing countries (Tolossa et al., 2020; Atuhaire et al., 2020) as it relates to CS mothers, particularly on how these mothers adopt internet-mediated communication as a coping strategy. Therefore, this study investigates how twenty-seven CS mothers in Nigeria gratified their post-CS goals through a WhatsApp group *Csection Mum Community. CsectionMum Community* was created during the first Covid-19 lockdown in Nigeria by a CS mother (who had experienced four CS births) intending to educate CS mothers and women in their ante-natal stage on maternal health.

This study is guided by some propositions of three theories: uses and gratifications, social penetration, and empathy model (see Table 1). Uses and gratifications, a theory traced to Elihu Katz, Jay Blumler, and Michael Gurevitch in the 1970s (Littlejohn & Foss, 2009) had been used by researchers to understand people's motivations for using WhatsApp and its features (Gamji & Salman, 2019; Masoga, 2020; Çelebi & Terkan, 2021; Ittefaq, Seo, Abwao & Baines, 2022). It explains "why people use the types of mass media they do" (Jason, Wrench, Narissra, Punyanunt-Carter & Katherine, Thweatt, 2020) "media users are active and goal-directed" (Florenthal, 2015). That is, individuals have some personal goals to achieve, and the goals push them to adopt the media that help them satisfy those goals. Thus, the benefits they derive from using the selected media are known as utilities, five of which Jason et al. (2020) identified: *interpersonal utility* (to interact with other people), *passing time* (to reduce boredom), *information seeking* (when they need to know or learn about something), c*onvenience* (i.e., it is quicker than physical communication) and *entertainment*. According to Mehrad and Tajer (2016), this theory also proposes that when people feel a higher level of utility for using a medium of communication, they prefer to use that medium, for it has more advantages in satisfying their needs than other available media.

On the other hand, social penetration theory, propounded by Altman and Taylor in 1973, concentrates on how people develop interpersonal relationships and their readiness to self-disclose personal information. Altman and Taylor's argument is that self-disclosure is determined by the "amount of time spent engaging with a relational

partner, commitment (satisfaction with the relationship), environment, and the perceived costs and rewards of disclosure" (Pennington, 2015:5). With the penetration of computer-mediated communication in human interactions, social penetration theory helps us understand that informational exchange precedes relationships, and when someone discloses a piece of information, the partner is obliged to reciprocate within the level of their intimacy. This theory proposes that people are cautious of the information they disclose in their first interactions, but later disclose personal information at will, and that self-disclosure soon becomes casual and spontaneous before the spontaneity becomes stable as a result of trust and intimacy between them (Carpenter & Greene, 2015). Littlejohn and Foss (2009:873) submit that "self-disclosure may yield supportive responses" and that may "lead to a stable social support network".

The last theory is the empathy model proposed by Barrett-Lennard (1993). Although it emanated from psychology, the use of this theory for research has become multidisciplinary. It has three phases: empathic resonance, empathic communication, and perceived/received empathy (Barrett-Lennard, 1993). According to Watson (2016), therapists (communicators) use information from their physical reactions and inner experience to understand the feelings of their clients (people in need of emotional support) in the first phase. "In the second phase, therapists communicate their understanding to their clients, and in the third phase, clients apprehend and receive their therapists' empathy to feel understood" (Watson, 2016). We can summarise this model with Littlejohn and Foss's (2009) explanation that the purpose of empathy is to "help others with their struggles, their problems, and their goals".

Table 1. Relationship between the study's theoretical underpinnings and the research questions

Theory	**Proposition**	**Formulated research questions**
Uses and Gratifications	People use a particular medium for interpersonal utility, passing time, information seeking, convenience, and entertainment (Jason, Narissra & Katherine, 2020). The more people feel that the real content of a medium satisfies their needs, the more possible for them to select it and its content (Mehrad & Tajer, 2016).	*What are the post-CS goals that prompted the CS mothers to join the CsectionMum Community WhatsApp group?* *To what extent do the group's activities satisfy their post-CS goals?*
Social Penetration	Those who have a secure attachment to people have high levels of self-disclosure while high openers encourage others to self-disclose (Masaviru, 2016).	*Why do the CS mothers feel safe disclosing their personal health information on the WhatsApp group?*
Empathic Model	To support people's emotional needs/struggles, therapists need to communicate to them (empathically) so that the people can receive and understand the therapists' feelings (Watson, 2016; Littlejohn & Foss, 2009).	*What role does interpersonal empathic communication play in the mothers' postpartum healing process?*

As represented in Table 1, the theories are relevant to this study because: (1) the post-CS goals that influenced the mother to join the WhatsApp group, alongside the extent to which the group's activities satisfied their set goals were understood through uses and gratifications theory. (2). It was through social penetration theory that enabled the author explored the reasons why the mothers felt safe while disclosing their confidential health information among diverse members of the WhatsApp group. (3) With the three phases of the empathic model, I sought the perspectives of the mothers on the role that interpersonal empathic communication played during the process of their postpartum healing.

METHODS

The study adopted Online Focus Group Discussion (OFGD), a subset of digital ethnography usually used in health-related studies where

research subjects are geographically diverse (Rivaz, Shokrollahi & Ebadi, 2019). Three different WhatsApp groups were created for the purpose of this study, while some reflections from Colom's (2021) study on utilities of WhatsApp for OFGD guided the approaches used to conduct the OFGD. These WhatsApp groups were created for three reasons, and these reasons were the practical solutions that enabled the researcher to collect data from the discussants (Colom, 2021). One, the central objective of the researcher was to understand the uses and gratifications of CS mothers who found social support in a CS WhatsApp group (*CSectionMum Community)* during the first phase of the Covid-19 pandemic lockdown in Nigeria. Because of social distancing measures, OFGD became the only feasible approach to documenting their experiences. Two, the fact that the mothers in the group had an ecological diversity (Colom, 2021) made it practically difficult to meet and converge all of them in their physical settings, as they all resided in different parts of Nigeria. Three aside from that OFGD is not prominently used by ethnographic researchers, this researcher used it to test the practicality of some approaches used by Colom (2021) in his Kenyan study. The three WhatsApp groups contained 27 CS mothers: two groups had 10 discussants each while the third comprised 7. Although 28 mothers were initially recruited, one was disqualified when a cheater question the researcher asked found her ineligible as she was not a CS mother. Data gathering stopped with the three sessions when a significant level of saturation was attained.

Recruiting the mothers for the study followed three sampling techniques snowball, purposive, and convenience. For snowball, the researcher contacted a CS mother who belonged to *CSectionMum Community* and explained the objective of the study to her. The mother then contacted the central administrator (admin) of the group, a CS mother who had gone through four CS births. After the administrator agreed to inform the group members, the researcher communicated with her. Twenty-eight (28) mothers agreed to be part of the study, but one was later disqualified (as stated above) [purposive and convenience sampling].

After an open ballot was separately conducted on the best time and day(s) the discussions could hold, each of the three groups agreed on different timing for two days. Moderating each session, the researcher adopted synchronous and asynchronous interaction techniques as suggested by Colon (2021). When it was synchronous, the discussants responded to questions immediately the moderator asked them. Other discussants who had unplanned busy schedules or technical challenges to joining the synchronous interactions with the moderator adopted an asynchronous approach. To enable each discussant to respond to the questions with ease, the moderator boldened the questions (using a feature provided by WhatsApp), and that helped them respond to each boldened question. Since the questions were semi-structured, the researcher was able to ask follow-up questions. The discussants' textual responses were later copied into a Microsoft word document, cleaned, sorted, and coded by the questions posed under each research question. The coded texts were then analyzed using the narrative technique and Braun and Clarke's (2013) thematic analysis protocols.

This study abided by two ethical principles. The first one is consent. When the researcher was creating rapport with the mothers as expected in ethnography (Angrosino, 2007), he sought their permission to use the content of the sessions for research purposes only. The second principle is data/identity protection (confidentiality). Here, the researcher asked the mothers in each study group how they would like to be addressed during the discussions and data analysis. Some chose their first names, some by their husbands' surnames, some with their children's first names (e.g., *Mama* Olawale, Mummy Samsam), and some liked being anonymous.

RESULTS AND DISCUSSION

The post-CS goals that influenced the mothers to join the CsectionMum Community WhatsApp group

Health education through information seeking

Seeking more information about CS and its surrounding health issues formed one of the dominant rationales why the mothers became members of the WhatsApp group. For example, Drey was pregnant during the first COVID-19 lockdown in Nigeria when she joined the group. According to her, "I joined because I was pregnant and wanted the community support and I saw it as a

place of learning and enlightenment about Csection." Mrs. Akano's goal was also for education as she sought to "learn more before getting pregnant again" as a CS mother. Another CS mother joined the community to also "learn more about CS, and to stand up for CS mothers."

Experiential learning and social support

Some CS mothers found the community as a second home where they could learn from the experiences of mothers who had passed through CS births. This would not only enlighten them more about CS but would also prepare them for future childbirths. One mother said:

> I wanted a support group filled with women who had gone same experiences that I have and passed through…

A similar reason was given by another mother who felt "people in the group are likely to understand better", for they "have something in common". Another mother joined the group "to learn from the experiences of other mummies and how they are healing and coping after a C-section." A mother categorically emphasized:

> I joined…when it was obvious I was going to be put to bed through CS and I wanted to be part of a community of experienced mums I can learn from.

The same goes for Mummy Samsam who was expecting her second baby at the time of joining the WhatsApp community:

> I joined because right from (the) day when I knew I was pregnant, I was going for elective CS and wanted to be with other moms who had gone through/were going for the same for me to learn the dos and don'ts of CS...

Some mothers revealed that they joined the group to get social support for their postpartum depression (PPD). To them, before joining the group, they had experienced some early symptoms of PPD that challenged their mental health. Mama Olawale was one of them:

> My reason for joining this group is to express my fear and ask questions concerning CS or belly birth. Also, to be emotionally balanced because people think birthing through CS makes those who gave birth through CS less of a mother.

Likewise, Mummy Steve joined the group to strengthen her mental health wellbeing. Despite her previous CS experience, she opted for being a member of the group to "feel important, free from the stigma of giving birth through CS" as if she were not a complete woman.

The extent to which the group's activities satisfied the mothers' post-CS goals

The transition from goal setters to goal getters

Here, the mothers highlighted some instances of valuable health education they learned from different healthcare facilitators the group always invited for a weekly health talk. They affirmed that the WhatsApp community influenced their health behavior so much that they fulfilled most of their post-CS goals they transited from goal setters to goal getters. For example, Chinenye who used to feel that her body failed her for being delivered through CS got more confidence after joining the group:

> …my self-esteem has gone up a notch and I have come to realize how strong I am for the 'sacrifice' my body made.

Specifically, lessons from the group's weekly activities strengthened the mental alertness of many mothers, as they easily accepted the reality of CS births despite the growing socio-cultural stereotypes about CS births. Mrs. Akano, for instance, learned to adore her CS scar because "being a belly birth mum does not make" her "less of a woman." Like many mothers, she also learned the precautions of CS births in the group. For some, learning not to lift their heads immediately after CS to avoid spinal aches and a severe headache was their priceless takeaway from the group, while some learned more about post-CS hygiene, dieting, 6-month exclusive breastfeeding, child care, medical checkups, and other post-natal health issues. Three CS mothers corroborated one another:

> The group has helped a lot, especially in the aspect of medical checkups. I chatted through the Admin about feeling pains in the suture after some months. She advised me and still posted on the group where members shared their experiences. At least, I felt relaxed that day.

> I have learned a lot, like taking care of myself and my baby after CS, exercise, and also my mental health.

> I have learned that I am not alone and I can get counsel from other mummies who have gone through what I am going through. For example,

my baby had colic and I asked the group what to do and I got responses from other mummies.

Thus, through the educational and informative activities of the group, the mothers achieved most of their post-CS goals. Aside from the ones earlier explained, other post-CS goals the mothers achieved included shedding their body weight within six months of delivery, keeping to healthy and balanced diets, getting their 'tummies' flatter after delivery, exclusive breastfeeding, prompt healing of incisions as well as keeping to medical checkups and fitness.

Platform's safety and self-disclosure of health information on the WhatsApp group

This section explains the reasons why the discussants felt that the personal health information they shared with the group was secured despite that the group had diverse members. The finding challenges the assumption that internet-mediated communication gives room for a potential breach of privacy between the communicator and the recipient. Despite the that communicating in WhatsApp groups gives a very limited opportunity for interactors to observe each other's non-verbal cues, the mothers did not worry about disclosing their personal health information spontaneously in the group. Two reasons were responsible for this feeling of safety. One, they all shared one or more similar identities: i. motherhood, ii. CS birth and iii. maternal health. Two, they believed that sharing their personal health information with invited experts was in safe hands, for they are trained data protectors. Mama Olawale belongs to the first category:

> I feel so safe because those who gave birth through CS know the feelings and tend to care more because they have passed through it. Also, questions are answered in the group without delay and our admins and other group members are also coordinated.

Also in Mama Olawale's condition is Mrs. Osas who strongly believed that:

> I know almost everyone there can relate to my issues, and the majority there are CS moms, no judging or criticism like others do. The leader there is a good example too...have never felt so free in a group before, not even a family group.

Although Drey, another CS mother, shared the views of the two mothers, she added that the fact that the group comprised strange members made it easier for her to feel free while disclosing her health-related information. She felt no one she knew offline could neither give unsolicited feedback on her questions nor critique her for asking CS-related questions. On feeling safe disclosing personal information to invited healthcare professionals, Drey submitted:

> Because they're exactly that Experts and professionals! This one is not just random thoughts or experiences that can differ based on varied factors but an actual medical opinion based on research and usually safe as per tried, tested, and trusted.

Another woman, Olufunmi, said:

> First, hearing from an experienced person about what you are going through gives hope. Secondly, talking to an experienced person reduces depression in many ways, because one will be anticipating hearing and learning new things.

Considering the high level of confidence and trust the respondents reposed in the WhatsApp community, the striking question therefore is: Does online health communication replace offline health communication? The mothers' views were divided into three. One group preferred an online community like *CSectionMum Community* to face-to-face interaction with medical personnel, while the second group preferred offline communication with medical personnel, especially during complications and emergencies. The last option that which majority of the discussants aligned with is to integrate offline with online health communication, as the combination gives the best health outcome the CS mothers require.

Role of interpersonal empathic communication in the PPD healing process

This theme focuses on how interpersonal empathic communication can contribute to the healing process of CS mothers after CS births. Interpersonal empathic communication in this context refers to interactions where one actively listens to understand the needs of CS mothers after CS births, and shows them empathy through positive utterances and actions. All the discussants submitted that being surrounded by people who value empathic communication and emotional support greatly helps them manage PPD symptoms. However, the absence of such communication and

someone to feel their pains always worsens their PPD healing process. Oyindamola stated:

> It (interpersonal empathic communication) is very effective because I could remember when I have my emergency CS, I was totally down but my hubby and my mom noticed my new behavior and they keep cheering me up and giving me words of encouragement- e.g., You are the strongest person I've ever met. With those words, I get my real self back.

Another woman corroborated that:

> ...it (CS birth) could be a very lonely road, but having someone to talk to or even listen to you makes the healing process easier.

In Mama Olawale's view, "effective communication is very important after CS. A lot of CS mums can be emotionally down which can possibly cause depression. Choosing a good choice of words cannot be underestimated". For Mrs. Osas, making CS mothers acceptable to and accommodated among the community of mothers who had vagina births is only possible through effective, empathic communication. According to her, the group displayed such communication skills when she joined— instead of looking down and pitying herself for giving birth through CS, the group communication she always had with the WhatsApp community changed her PPD story to a state where she felt more relaxed and prouder of her new reality. Mummy Samsam corroborated Mrs. Osas' position that:

> It (empathic communication) will go a long way as most women go through a lot after CS, especially when they don't really have a support system in place at home.

Illustrating her experience, Mama Ayọ revealed that her inability to get whom to speak with after her CS birth negatively influenced the early depressive symptoms she experienced. According to her, having "someone whom (they) can listen and talk to" can prevent depressed women from developing complicated mental health issues. Drey's experience after her childbirth was a bit traumatic. Her inability to receive the needed interpersonal empathy she had expected from her mother irritated her so much that she started transferring her anger to her newborn baby.

> I just used to stay in my room all the time and stay online to keep me happy to an extent, used to be angry at my baby and felt like I was forcing myself to love my baby. Then, I'd feel guilty for not naturally loving and transferring aggression to an innocent baby. It was a very difficult time for me.

Drey's experience explains the personal experience of Mrs. Oluwajerimi Adewale, one of the administrators of *CsectionMum Community* who had had four different CS births. According to her, the advocacy she does with pregnant women at different government hospitals shows that a lack of empathic communication, spousal support, proper information, and socio-cultural myths around CS delivery compound the traumas CS mothers experience. Therefore, "many are mentally traumatized because they had little or no knowledge about Csection birth."

Postpartum depression (PPD) is a mental health issue often neglected or underrated in many cultures (Tolossa et al., 2020; Atuhaire et al., 2020). This study asked twenty-seven CS women in Nigeria about the post-CS goals that made them join a WhatsApp group for CS mothers (*CsectionMum Community*), examined the extent to which the group's activities helped them satisfy those goals, asked them about their self-disclosure habits on the group as well as how interpersonal empathic communication could improve their PPD healing process. The first finding reveals that the mothers joined the WhatsApp group to meet their interpersonal utility, information seeking, and convenience goals. These post-Cs goals are health education, experiential learning, and social support, and can be explained by Blumler and Katz's (1974) Uses and Gratification Theory that people use a certain medium to interact with others, learn more about phenomena and communicate quickly (Jason et al., 2020). That is, despite the absence of public self-awareness of the group (i.e., most members did not know one another), the CS mothers learned from different experiences of their colleagues and built a social connection with whom they shared similar experiences (interpersonal utility).

They were also free to ask questions about maternal and pediatric health from experienced mothers in the group alongside the invited health professionals (information-seeking goal) while some saw the group as an easy-to-reach platform for urgent and mild health issues that would have taken them more time and energy to visit a hospital (convenience goal). These utilities of WhatsApp as

experienced by the mothers imply that the women were active and goal-directed media users (Florenthal, 2015). The utilities also corroborate the previous findings of Willemse (2015), Kamel Boulos, Giustini and Wheeler (2016), Adejo and Opeyemi (2019), Pereira et al. (2020), Chan, Yong and Harmizi (2020), Sukriani and Arisani (2020), Yusriani and Acob (2020), Jailobaev, Jailobaeva, Baialieva, Baialieva and Asilbekova (2021) alongside Ayandiji, Afolabi and Olaojo (2021) that people used WhatsApp groups for gratifications such as health education, interpersonal communication, social connection, and information seeking.

For the second finding, the gratifications the mothers got from the group's activities fulfilled their post-CS goals, and that fulfillment enabled them to transit from goal setters to goal getters. Through the health education, experiential learning, and the social support they got from the group, the women were able to manage their mental health and their babies' wellbeing. Some other goals they achieved by being members of the group included their post-CS goals of shedding body weight within six months of delivery, keeping to healthy and balanced diets, getting their 'tummies' flatter, exclusive breastfeeding, prompt healing of incisions as well as keeping to medical checkups and fitness. Essentially, the sense of social affinity and intimacy the mothers enjoyed in the group further explains Nobre, Ferreira, and Almeida's (2020) submission that a WhatsApp group is a community of like minds who connect with one another because they are driven by intentional behavior, coincidence or a mix of both to achieve certain goals by using the dynamics of group communication.

This finding also affirms Mehrad and Tajer's position in Uses and Gratifications Theory that the more people feel that the real content of a medium satisfies their needs, the more possible it is for them to select it and its content. However, this finding challenges and at the same time supports Pornsakulvanich, Haridakis, and Rubin's (2008) argument that those who substitute face-to-face communication with computer-mediated communication (CMC) [e.g., WhatsApp] tend to find their interactions through CMC unrewarding, while those who complement face-to-face communication with CMC find interactions more rewarding and fulfilled. While this study affirms the latter position, the former argument was challenged by a CS mother who said she preferred online health education and communication to face-to-face interactions with her healthcare personnel. Her preference for online consultancy was due to its promptness (convenience utility) and depth in getting needed information.

The third finding shows that when members of a group trust one another, share similar experiences, and have an intimate connection with members, they freely disclose their personal health information. One, the mothers felt secure self-disclosing their information because the invited healthcare professionals would never share their information with third parties since they are experts trained in confidentiality. Two, the mothers felt their information was secure because most of their colleagues in the group have experienced CS births. Then, the group administrator's leadership skills were protective. These insights point us in the direction of social penetration theory. The study affirms its theoretical proposition that when people disclose personal information at will, self-disclosure becomes casual and spontaneous as a result of trust and intimacy existing between/among them (Carpenter & Greene, 2015). Littlejohn and Foss's (2009) submission that self-disclosure may yield supportive responses that may lead to a stable social support network is equally affirmed by this finding. The fact that the group afforded the mothers a communal life (Rosenberg & Asterhan, 2022) and intimacy (Liew, 2020) motivated them to freely share significant information about themselves, as they saw group members as like minds whom they have shared affinity with (Koçak & Vergiveren, 2019; Jailobaev, Jailobaeva, Baialieva, Baialieva & Asilbekova, 2021). Such information disclosure was necessary because the mothers needed social or emotional support (Knop, Öncü, Penzel, Abele, Brunner, Vorderer & Wessler, 2016; Esteve-Del-Valle, Costa & Hagedoorn, 2022), relationship building (Sharif, Soroya, Ahmad & Mahmood, 2021) and anticipation of some positive gratifications (Krämer & Schäwel, 2020).

The last finding revealed that interpersonal empathic communication is a required non-clinical intervention that improves (the) CS mothers' PPD healing process. Interpersonal empathic communication in this study refers to a situation whereby close people surrounding CS mothers (e.g.,

family members, spouses, friends, colleagues, loved ones, healthcare practitioners) show them empathy, actively listen to understand their emotional needs and communicate positively with them. Mothers who did not enjoy such empathic communication components easily developed PPD symptoms their self-esteem and worth dropped as a result of the social stereotype that describes them as "mothers who did not give birth the normal way". The moment these mothers experienced PPD, their interpersonal relationships with people and parental responsibilities to their babies significantly dropped. However, the empathic communication these mothers got after joining the WhatsApp group helped them manage their mental health and heal from their PPD symptoms. For those mothers whose loved ones showed emotional and empathic communication support after CS, interpersonal empathic communication was a saving grace to their PPD healing process (Dennis, 2003; Friedman & Resnick, 2009). Barrett-Lennard's (1993) empathic model was further used to understand the mothers' experiences with empathic communication. We established the significance of the three phases of an empathic model (empathic resonance, empathic communication, and perceived or received empathy) in this finding. That is, the people who were empathic to the mothers after their CS delivery (therapists) put themselves in the mothers' position intending to understand the mothers' feelings (empathic resonance).

They later showed empathic communication to the mothers (empathic communication), and the mothers received their empathy (perceived or received empathy) as a healing intervention for their PPD (Watson, 2016). Littlejohn and Foss's (2009) explanation that the purpose of empathy is to help others with their struggles, problems, and goals has a significant resonance here. However, the mothers who did not enjoy interpersonal empathic communication at the onset of their PPD symptoms did not pass through the three phases of the model. Despite this, the study has empirically shown that engaging CS mothers in interpersonal empathic communication help them heal early from PPD (Moudatsou, Stavropoulou, Philalithis & Koukouli, 2020), reducing their pains (Howick et al., 2018) and improves their quality of life.

Utilities of WhatsApp groups

WhatsApp, being a popular and growing instant messaging application among users, is used for different purposes, one of which is to accomplish one's interpersonal communication needs. According to Chan, Yong, and Harmizi (2020), WhatsApp's features such as its visual components (e.g., emojis) enable users to connect without the barrier of distance and strict face-to-face interactions (Hasan, 2018). To maintain interpersonal relationships via this medium, users enjoy some level of social connection (Liew, 2020; Jailobaev, Jailobaeva, Baialieva, Baialieva & Asilbekova, 2021), though its over-reliance on interpersonal communication may disconnect them from the reality of off-WhatsApp interactions (Chan, Yong & Harmizi, 2020).

Also, WhatsApp is used for health education (Willemse, 2015; Kamel Boulos, Giustini & Wheeler, 2016; Pereira., Destro, Bernuci, Garcia, & Lucena, 2020; Sukriani & Arisani, 2020; Cheung et al., 2020; Yusriani & Acob, 2020), and this happens when users of similar interest join WhatsApp groups that engage in such education (Nobre, Ferreira & Almeida, 2020). As users get enlightened on the WhatsApp groups (Grover, Garg & Sood, 2020), they also seek information relevant to their needs (Adejo & Opeyemi, 2019; Ayandiji, Afolabi & Olaojo, 2021). While seeking information, they also exchange beneficial information with one another (David, 2020). For instance, these studies show that by joining different WhatsApp groups, women increased their knowledge of breast cancer, student nurses learned more about primary health care, mothers improved their breastfeeding practice and behavior, and secondary school students in Indonesia modified their smoking behavior. These outcomes indicate that structured WhatsApp groups promote health education, health communication, and psycho-social support.

WhatsApp groups, privacy, and self-disclosure

One important reason WhatsApp users join WhatsApp groups is to satisfy their communication needs (Raiman, Antbring & Mahmood, 2017) as well as be exposed to a mediated communal life (Rosenberg & Asterhan, 2022) and social intimacy (Liew, 2020). That is, WhatsApp groups draw users closer to a community structure by "bringing together people across time zones, creating

communities of similar-minded/tasked people, and giving a sense of belonging to group members" (Nobre, Ferreira & Almeida, 2021:63). Understanding these features, some group members feel free to disclose significant information about themselves, as they see fellow group members as like minds whom they share a social affinity with (Koçak & Vergiveren, 2019; Jailobaev, Jailobaeva, Baialieva, Baialieva & Asilbekova, 2021). They also self-disclose because they need social/ emotional support (Esteve-Del-Valle, Costa & Hagedoorn, 2022), or believe their personal information is worth disclosing.

Thus, one would have expected that self-disclosure among members of WhatsApp groups poses only privacy threats, but evidence shows diverse views. Aharony (2016) argues that online users (e.g., WhatsApp) disclose their personal information because of an absence of public self-awareness and the trust level they have developed with group members. That is, social networking "platforms enable self-disclosure from people who would not usually reveal personal information in face-to-face interactions" (pp.3-4). Knop, Öncü, Penzel, Abele, Brunner, Vorderer, and Wessler (2016) add that self-disclosure in an online sphere enhances emotional support, social identity, or what Sharif, Soroya, Ahmad and Mahmood (2021) called relationship building. However, when the online sphere goes beyond dyadic interaction, they argue that the rate of self-disclosure reduces; in such instances, personal dispositions of group members, their social status, goals, and platform trustworthiness (security) influence their self-disclosure behavior. Still, Nabity-Grover, Cheung, and Thatcher (2020) see self-disclosure in the online sphere as a threat to one's privacy. Another study (Krämer & Schäwel, 2020) submits that although online users want their confidential information protected, they self-disclose when they anticipate some gratifications that give them more advantages.

The place of interpersonal empathic communication in mental health distress

Communication and mental health experts unanimously agree that interpersonal empathic communication is a significant non-clinical therapy for psychological distress. Interpersonal empathic communication in this context refers to a dyadic interaction whereby one uses communication skills such as active listening, guided expressions (language competence) as well as bonding and connection to draw one's attachment to a psychologically-distressed individual (Tan et al., 2021; Li, 2021). Studies show that empathic communication influences the recovery pace and health outcome of individuals in a state of psychological distress (Moudatsou, Stavropoulou, Philalithis & Koukouli, 2020) such as postpartum depression. It also reduces the pains and anxiety people pass through (Howick et al., 2018), reduces negative verbal and affective expressions (Li, 2021), and strengthens mother-child behaviors and development (Boorman, Creedy, Fenwick & Muurlink, 2019). To summarise the positions of these studies, interpersonal empathic communication in mental health "enhances the user's ability to comprehend reality and improve the quality of their life" (Moudatsou et al., 2020:4), and such communication strengthens dyadic emotional attachment.

CONCLUSION

This study has joined the conversation on the utilities of WhatsApp groups for health education, communication, and goal attainment. The CS WhatsApp group empowered CS mothers, as they had deeper information and sensitization about CS births, social affinity with members, access to emotional support, and experiential learning from their fellow mothers. This study, therefore, recommends that hospitals (that operate on patients) empower adult mental health nurses or clinical psychiatrists whose main responsibility would be to engage CS mothers and their caregivers (family members, spouses, etc.) in psycho-education before discharging the mothers.

The psycho-education should emphasize the significance of interpersonal empathic communication in the post-CS healing of the mothers, as well as the roles of core family members of the mothers in that regard. Then, these hospitals should operate a sustainable virtual support service like the WhatsApp group for CS mothers who had used their hospitals; the service would be used for post-CS interactions between the mothers and the surgeons or/and adult mental health nurses. However, this study suggests that future research should consider documenting the experiences of unlettered CS mothers who are off

WhatsApp and reside either in the rural or urban areas to investigate their coping mechanisms for postpartum depression after CS births.

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