



Girls on the Growth Way: Lived Experience of Coping with Menstruation in Orphans and Vulnerable Girls in Care Institutions

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ABSTRACT

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Objective: Challenging menstrual situation is more difficult for orphans and vulnerable adolescent girls; also negative experiences of having period have a significant impact on their physical and mental health. Awareness of their experiences is essential for improving and developing programs as well as psycho-social interventions.

Method: The present phenomenological qualitative study investigated menstrual experiences of orphans and vulnerable adolescent girls residing in residential houses of Orphans and Vulnerable Children (OVC) Care Institutions in Iran. Saturated sampling lead to collecting 12 semi-structured interviews with the OVGs living in OVC Care Institutions shelter home for orphan children . The use of Colaizzi's method of data analysis enabled new knowledge to be revealed and provided insights into the experiences.

Results: The results of analysis included Five main themes emerged from the analysis: 1) Distressing Physical Manifestations (including pain, fatigue, and hygiene-related discomfort), 2) Emotional and Cognitive Challenges (negative emotions and thoughts), 3) Adaptive coping strategies (such as acceptance and help-seeking), 4) Adaptive Coping Mechanisms (including reliance on misinformation and emotional reactivity), and 5) Institutional Care Experience (highlighting the unique aspects of managing menstruation in residential care settings, including privacy concerns and access to hygiene facilities).
Conclusions: The adolescent girls in residential care face distinct challenges in managing menstruation, particularly regarding privacy and access to support. While some participants developed positive coping strategies, others struggled with limited knowledge and emotional difficulties. These insights suggest the need for targeted interventions that address both the practical and emotional aspects of menstrual management within residential care settings, with particular attention to privacy concerns and comprehensive menstrual education.

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Introduction

Adolescence is a developmental transition stage, which is considered one of the priorities in mental health research due to complicated and integrated changes in appearance, brain, behavior, cognition and feelings (Bashir, Usman, Siddique, & Amjad, 2020; Dorn, Hostinar, Susman, & Pervanidou, 2019; Mendle, Beltz, Carter, & Dorn, 2019). During puberty, sexuality, which is known as the onset of adolescence, develops (Holder & Blaustein, 2014), an in-depth mental development occurs (Berenbaum, Beltz & Corley, 2015; Wood, Lane & Cheetham, 2019) and, due to its relation to the primary antecedents of life, health issues, puberty-related risks and adulthood health, it is a "window of opportunity" for understanding health span and influencing on it (Dorn et al., 2019). However, the quality of one's development results from interactions between their characteristics, immediate environment, and larger environments in which they grow. Adolescent girls constitute about half of 16% of Iran's adolescents in their puberty (Alimoradi & midwifery, 2017; Nourolohi et al., 2011). Illustrating dynamic systems involved in development has helped us understand how social context, hormones, and neurological activity affect adolescents' experiences (Marván, Molina-Abolnik, 2012), as recent findings have shown considerable effects of the environment on girls' development, and particularly on their puberty (Sonuga-Barke et al., 2022), and also have reflected the need to receive culture-related information and special gender-based education (Akbari Kamrani & Farid, 2017; Coast, Lattof, & Strong, 2019; Dorn et al., 2019; Sommer & Sahin, 2013). Improving teen girls' quality of life and development has several dimensions, from which menstruation has received limited attention (Sommer, 2009). However, when it comes to female adolescents, the onset of menstruation is an outstanding event since it can affect their self-confidence, education, participation in daily activities, and overall quality of life, considerably, not only during puberty but also after that (Holmes et al., 2021). In particular, the experience of menstruation is not only a physical process; it is also affected by attitude, information, and social-cultural factors (Manoshi & Shastri, 2018). Inner and outer expectations, which women and girls apply to themselves and others, affect the experience of menstruation; these expectations include explicit cultural or religious expectations from menstruating women and implicit ideals about worthiness and purity during menstruation, which may be different in different countries and even in various parts of the same country (Hennegan, Shannon, Rubli, Schwab, & Melendez-Torres, 2019). Reviewing menstruation experiences among adolescent girls in different cultures shows these experiences range from positive to negative (Golchin, Hamzehgardeshi, Fakhri, & Hamzehgardeshi, 2012; Kwon & Park, 2019; Li et al., 2020; Sommer et al., 2016). For instance, the first menstrual cycle, which often is accompanied by a range of unfavorable events, from sudden and unexpected onset to pain and cramps, can be perceived positively due to these factors (Kwon & Park, 2019). It means that when girls are more informed about and ready for menstruation, they may experience fewer negative feelings and be less secretive about it (Marván et al., 2012; Su, Lindell, & sciences, 2016). Despite recent changes, especially in informing girls about menstruation, most findings show that insufficient guidance and necessary facilities for managing menstruation (Hazavehei et al., 2014; Hennegan et al., 2019; M. Sommer, Hirsch, Nathanson, & Parker, 2015), experiencing fear (Hennegan et al., 2019), shame, confusion (Afshary et al., 2016; Li et al., 2020; Sommer, Hirsch, et al., 2015), and bewilderment in encounters with fictions and stigma (DeMaria et al., 2020; Hennegan et al., 2019) are frequent even in high-income countries (HIC) (Hennegan, Dolan, Wu, Scott, & Montgomery, 2016; Sommer, Ackatia-Armah, Connolly, Smiles, &

Education, 2015). These findings revealed that, in times of experiencing menstruation-related problems, few girls seek healthcare, have access to menstrual products, or use them to manage their period. Instead, many rely on home remedies and often do not have access to soap, healthy water, and facilities for private disposal of period products (Hennegan et al., 2019; M. Sommer & Sahin, 2013). Hence, most girls experience complicated conditions of puberty and menstruation with different degrees of difficulty (Holmes et al., 2021).

Although various factors are involved in the formation of this difference (Schmitt et al., 2021) and confusion, anxiety, mood swings, low confidence and depression are typical in this age group (Tarazi-Sahab, El Husseini, & Moro, 2021), research has shown that stressors lead to more vulnerability, problems and negative experiences such as anxiety and depression, which may affect the experience of puberty and, in particular, menstruation (Akbari Kamrani & Farid, 2017; Dorn et al., 2019; Holder & Blaustein, 2014). One of the most critical stressors is the lack of effective presence of parents, which also increases the risk of experiencing other sources of vulnerability (Yendork, 2020). The United Nations Children's Fund has warned about the significant increase in the population of under-18-year-old orphans and vulnerable children (OVC) worldwide (UNICEF U, 2004). Since OVC is a potential risk factor for negative physical and mental health outcomes, which increases the possibility of violation of primary rights in education, health, and safety (Sonuga-Barke et al., 2022), social-cultural context can intensify their vulnerability (Yendork, 2020), since the limited budget of residential institutions may affect negatively the quality of services provided to people under their care (Nyamutinga & Kang'ethe, 2015). Furthermore, adolescents deprived of a family may lack an appropriate model, resources, or adequate training in order to cope with stressors and, as a result, may use rather emotional and less flexible mechanisms, which makes the problems more complicated (Yendork, Somhlaba, & Review, 2014). Hence, adolescents who live in an orphanage have more severe problems than adolescents living with their parents, and negative experiences such as anxiety and shame are the result of this resource limitation and inadequate knowledge (Imron, 2014). Parent deprivation is particularly significant for girls because mothers are the most common source of information about puberty and menstruation in most countries, including Iran (Afshary et al., 2016; Hennegan et al., 2019). Hence, it has been observed that under-supervised and unsupervised girls living in residential institutions show lower levels of health behaviors in comparison with girls who live with their families (Nejat, Kashaninia, & Memarian, 2008). Furthermore, in the temporal system, puberty decreases the social support that orphan girls may receive (Yendork, 2020). puberty and menstruation can present significant problems such as vulnerability, abuse risk, unintended pregnancies, difficulties with managing menstrual hygiene, abnormal uterine bleeding, dysmenorrhea, and behavioral difficulties/mood concerns. (Dural& Akhan, 2020).

It is believed that necessary training may make caregivers aware of OVC's needs and their own care methods (Yendork, 2020). It is evident that improving teen girls' lives is a multidimensional issue. However, limited attention has been paid to the understanding of the role of menstruation (Sommer, 2009). Although some research has been done in this area, the opinions of the main stakeholders, i.e., OVC and, in particular, adolescent girls, have often been neglected. However, in-depth understanding and insight into menstruation-related experiences may promote a pleasant puberty experience and help develop educational and therapeutic interventions, and provide culture-congruent services (Fidora, Putri, & Ningsih, 2020). Hence, the current research aimed to study lived experiences

of coping with menstruation among unsupervised and under-supervised adolescent girls, using a qualitative research method.

Method

Participants

Participants were purposefully selected from among orphaned and delinquent adolescents at two central centers in Mashhad—Ameedi and Hemayerahmat—which were the only facilities dedicated to the care of orphaned and delinquent adolescent girls. Sampling continued until data saturation was achieved, with a total of 12 interviewees.

Study Design

Phenomenology allows researchers to understand the unique experiences of individuals, and it aims to describe the basic structure of a phenomenon communicated through words, personal feelings, attitudes, and behaviors. It can be concluded that orphan adolescents have different perspectives on their lived experiences which could benefit their psychoeducation. Under the influence of Husserl's descriptive phenomenology, Colaizzi developed a seven-step method of data analysis which refines the reliability and dependability of results and is different from other methods since it requires the participants to validate the results. Seeking the meaning and the nature of a phenomenon should not include strict steps; rather, it should be done through an in-depth and complete exploration of the meaning, coupled with a discussion about how to perform it (Colaizzi, 1978). The samples were recruited through purposeful sampling. This study was conducted within ten months. The interviewees were 12 OVGs living in OVC Care Institutions shelter homes for orphan children in Mashhad. Criteria for entering the research were: 1. the participant's age range was from 12 to 15 years old. 2. Psychological ability to interview. In this study, the given phenomenon was the puberty experiences of vulnerable and orphan adolescent girls residing in care homes. the exit criterion was refusal to continue the interview.

Measures

The data were collected through 12 qualitative semi-structured interviews. The interviewer started by asking general open questions and then continued with complementary questions based on the instructions about awareness, coping, and hygiene of sexual maturity. Content validity was assessed by a panel of 5 experts in adolescent health and qualitative research methodology, resulting in a Content Validity Index (CVI) of 0.87. The reliability was confirmed through test-retest analysis with a two-week interval ($r = 0.84$). Additionally, member checking was conducted with participants to ensure the accuracy of the interpreted data. An interview guide was developed to help carry out in-depth interviews with the girls that included the main ideas that should have been examined in the form of questions. Furthermore, some ideas appeared inductively during the data collection process and were added to the interview guidance of the subsequent interviews. All interviews were conducted in Persian and lasted between 45 to 90 minutes.

Data analysis

In this phenomenological study, the data collected using semi-structured interviews simultaneously were analyzed based on Colaizzi's 1978 (Colaizzi, 1978) seven-step model. The Colaizzi steps provide a detailed analysis: all interview transcripts were read several times so that a global understanding

could be obtained; those statements that were related to the aims of our study were extracted; the meanings were formulated; the identified meanings were clustered into themes; the results were integrated into the experience description; to maintain the data validity, the transcripts were checked repeatedly; the researchers identified the transcript clusters; minor differences, which were mostly related to the choice of words, were observed in coding; the differences were discussed, and an agreement was obtained; the reliability of interviews was determined by Inter-coder agreement; were calculated by using re-test reliability at the End of an Interview. the validity was checked through recording and precise transcribing of interviews. The coding process involved:

1. Independent coding of all 12 interviews by two researchers
 2. Regular meetings to compare and discuss coding decisions
 3. Documentation of coding disagreements and their resolution
 4. Final validation of themes and sub-themes by the research team
- Nevertheless, long interactions and spending an adequate amount of time communicating and collecting data helped develop trust and connection with the participants. Furthermore, the process of checking and examining the data was carried out with the help of our participants to ensure that the analyses reflected their experiences.

Results

The coding results of the interview data show that the lived experiences of orphans and vulnerable girls in coping with sexual maturity include 5 main themes and 16 sub-themes. The contents of the main and sub-themes have been obtained, which are presented in Table 1:

Table 1: The general results of coding of the Lived experience of menstruation in orphans and vulnerable girls

Theme cluster	Formulated meanings	Statement
Distressing Physical Manifestations	Pain and cramps	You get a stomach ache
	Weakness and fatigue	I am very sick
	Hygiene-related discomfort	It gets very dirty and does not smell good
Emotional and Cognitive Challenges	Negative emotions	I get sad very suddenly
	Negative thoughts	I think everything is very difficult and complicated
Adaptive Coping Mechanisms	Attributing positive meaning"	It's good for health and for getting pregnant in the future
	Acceptance	I found out that it's not a severe problem; it's normal
	Attending to the body	Breast growth makes me look more attractive
	Seeking help	I asked a teacher whom I'm very intimate with
Maladaptive Response Patterns	Compatibility with religious expectations	I feel good that I am understood and God wants me to rest more
	Relying on limited/false information	If you are in pain now, later when you get married, your pain will decrease, so you should not pay attention to this pain
	Focusing on negative emotions	Because I am angry, I like to shout at everyone
	Immature behaviors high numbers of supporters	I start cursing and quarrelling My supervisors and friends always ask how I am, they help me
Institutional Care Experience	low privacy	Sometimes I just want to be alone, well, there is no place to be alone or a quiet place to rest.
	Access Barriers to Facilities	"I'm too embarrassed to ask for sanitary napkins"
	Inadequate Menstrual Education	I know that warm liquids are good for heartache.... I don't know what to do for low mood

Distressing Physical Manifestations

The participants explained their physical, and often undesirable, experiences during their period: (1) pain and cramps; especially cramps in the lower abdomen, the lower back, and the thighs, headache, and some pains which were not easy to express such as aches in their breasts, (2) fatigue or weakness; which was usually a result of pressure drop or bleeding and led to decreased focus and low mood, and (3) Hygiene-related discomfort; including concerns about cleanliness, unpleasant feelings due to lack of proper hygiene, and issues related to unpleasant odors during menstruation

Emotional and Cognitive Challenges

The majority of our participants reported the development or intensification of psychological problems: (1) negative emotions; hatred, shame, sadness, anxiety, embarrassment, worry, and fear, especially during the first menstrual cycle or as a result of possible leaks during each cycle, and (2) negative thoughts: too much preoccupation with body deformity and ugliness, impurity, pessimism about the future, overestimation of one's abilities or ending of childhood, intrusive rumination about, for example, a decreased chance of being adopted.

Adaptive Coping Mechanisms

This central theme included mechanisms that helped efficient and problem-solving-based coping against social, cognitive, psychological, and physical stressors. In general, these positive mechanisms were obtained through close people, such as family, friends, or older people, formal education in school, and particularly teachers at care homes, and reading books and searching the web. Its subthemes included: (1) attributing positive meaning; which showed positive opinions about and attitudes toward menstruation such as considering it as a sign of transition to womanhood, something worthy for fertility and preparedness for marriage and a prerequisite for independence, (2) acceptance: the girls' ability and capacity for accepting menstruation as a natural phenomenon or a typical phase in gender-specific development, (3) attending to the body; a set of changes in rest, food and clothing plans which the girls used to manage their menstrual pain and weakness, (4) seeking help: trying to seek help both to obtain information and gain empathy/care, (5) religious compatibility; including positive mechanisms focusing on religious rites such as gaining peace through worship, a sense of being understood since the religion pays attention to girls' conditions and being accepted as an adult and (6) Obtain the required information; including positive mechanisms focusing on knowing like knowing the changes of puberty and how to cope.

Maladaptive Response Patterns

This implies coping with sexual puberty in a way that leads to undesirable results either for the individual or for others, may even harm them, and disrupt social and individual functions. Its subthemes included: (1) relying on limited/false information, including relying on false beliefs for making decisions and managing menstruation such as overestimation of one's abilities for getting married due to the onset of menstruation, false beliefs about sexual relationships, underestimation of the probability of pregnancy and false information about menstrual hygiene, as well as considering menstruation as a matter of secrecy and taboo, (2) immature behaviors; limited and false beliefs or lack of information about menstruation-related changes may lead to behaviors such as avoiding asking for help, aggression towards others, social withdrawal, not observing personal hygiene, sheer following of peers in managing menstruation; (3) emotion-focused problem solving and, consequently,

falling behind on homework, absence from class, secrecy about keeping, getting and disposing of pads, etc.

Institutional Care Experience

Teen girls' experience of menstruation in care homes both had context-specific privileges and needed promotion in some areas: (1) high numbers of supporters; the participants were in touch with a large number of people, whom they obtained information from or shared their daily life with. Especially encountering people like themselves reduced the pressure resulting from feeling lonely and the assumed uniqueness of their problems. Despite this privilege, (2) low privacy; they needed a private place to rest or regulate their emotions before and during their period; however, accessing such a personal space in a collective living environment had been somehow difficult, (3) Desirable health facilities but insufficient psychological skills, but limited access; health facilities and other facilities required for managing menstruation, such as pads, trash bin, water and hygienic soap were available as needed; however, they were not often used easily due to shame of the possibility of being ridiculed by peers, and, for example, some girls would rather use municipal bins outside their residency to dispose of their pads, (4) non-comprehensive, menstrual knowledge; teen girls awareness of menstrual knowledge and its management was a combination of true (often obtained from inside the care home) and false, even fictional, information (often obtained from family members or peers). The majority of our participants considered non-personal, science-based instructions about the physiological process of menstruation, which were obtained from care home officials, as helpful. Furthermore, these instructions delivered the menstruation-related cultural values and beliefs, such as "a sign of fertility," to the girls. These instructions were mostly provided in a non-personal way, while grandmothers, family members, and peers reinforced more individualized mechanisms that went beyond focusing on physiology and included more emotional, detailed, and practical support for managing menstruation. Moreover, such beliefs and fiction, including tips such as never taking painkillers or using sexual intercourse to decrease menstrual pain, often delivered by adolescents' peers and biological families, needed to be expressed and corrected. Hence, living in care homes was accompanied by a lack or inadequacy of knowledge about monthly mental changes before and during a period as well as practical management of menstruation and maintaining menstrual health, which usually led to signs of depression, confusion, stress, absence and less participation in school or recreational activities and, subsequently, more isolation.

Discussion

Improving the lives of teenage girls is multidimensional. However, limited attention has been paid to understanding the role of menstruation (Sommer, 2009). The menstrual experience of under-supervised and unsupervised girls is an example of the intersection of gender and the welfare of OVC in a particular context. Its emphasis on mutual interaction between the developing individual and their environment attracts attention to this critical fact that menstruation is a complicated phenomenon and, for a better understanding of its broader effects, a comprehensive and multisystem approach is needed, which provides a clearer picture of its different layers. Hence, this study aimed to examine teenage girls residing at care homes experiences who had their first menstruation early in puberty. The results included five theme clusters and 16 formulated meanings: (1) physical problems (pain and cramps, fatigue and weakness and genital infections); (2) psychological problems (negative emotions and

negative thoughts); (3) positive mechanisms (attributing positive meaning, acceptance, attending to the body, seeking help and compatibility with religious expectations); (4) negative mechanisms (relying on limited/false information, focusing on negative emotions and immature behaviors); and (5) needs and privileges of care homes (high numbers of supporters/low privacy, desirable health facilities, but limited access, helpful but non-comprehensive, menstrual knowledge). overall more psychological issues than their peers, more emotions and immature behaviors, inadequate coping mechanisms and more maladaptive coping mechanisms and Behavior, and failure to adequately meet their needs.

Although themes and formulated meanings were differentiated in this research, all of them are parts of a single experience and closely related, affect each other, and help clarify, organize, and emphasize the diversity of human experience. Understanding the complexity of this experience relies on understanding its integrated nature, and reaching to this integrity requires paying attention to the role of the cultural context in the formation of experiences (Crockett et al., 2019; Deardorff et al., 2019). In general, in the context of care homes and given that the girls were adolescents, they reported a range of positive to negative experiences, which is in line with findings in different cultures and settings (Golchin et al., 2012; Kwon & Park, 2019; Li et al., 2020; M. Sommer et al., 2016). The stated menstrual problems were consistent with other studies from all over the world, which reported both physical (Hennegan et al., 2019; Kwon & Park, 2019) and psychological problems in girls (Afshary et al., 2016; Hennegan et al., 2016; Hennegan et al., 2019; Holmes et al., 2021; Li et al., 2020; M. Sommer, Ackatia-Armah, et al., 2015; M. Sommer, Hirsch, et al., 2015). The observation of negative mechanisms was not surprising since they were predicted (Nyamutinga & Kang'ethe, 2015; Sonuga-Barke et al., 2022) or reported in previous studies (Nejat et al., 2008; J. S. Yendork et al., 2014; J. S. J. N. I. i. P. Yendork, 2020) (Imron, 2014). However, the positive mechanisms were less observed in the previous studies (Kwon & Park, 2019), and it seems that, as the participants said, these mechanisms are a result of increased awareness due to the received instructions in the context of care homes; this explanation is in line with the studies which support the importance of awareness and more support in increasing positive experiences (Marván et al., 2012; Sonuga-Barke et al., 2022; Su et al., 2016). In particular, the findings of this research highlighted the needs and privileges of care homes and showed that teenage girls' experience of menstruation at care homes in Iran has advantages and yet requires promotion in some areas. These findings were not observed in previous studies, such as (Fidora et al., 2020), carried out with a similar group but in a different context. This implies that these findings may be unique to this particular context. Hence, this part of our findings distinguishes our study and can be the attention point for designing special programs for this context.

Accordingly, the key strength of this research is applying a qualitative approach which allowed the researchers to extract the experience of understanding and the meaning of menstruation from the main stakeholders in a particular context and add to the current literature. Furthermore, the researchers could view menstruation from adolescents' viewpoints, which is different from previous research, especially in Iran, that focused on physical health and pregnancy.

Moreover, unlike some retrospective studies that have examined adults' menstrual experiences, this research examined menstruation in the developmental range of the first menstrual cycle. Hence, examining a potential and critical issue in Iran, this study contributes to a few qualitative studies on awareness about unsupervised and under-supervised teenage girls and their developmental challenges regarding menstruation. Despite such potential advantages, this research also has some limitations.

Given the qualitative nature of this study, the results may only reflect participants' views and cannot be generalized to the general population. Menstrual health is a multi-sectoral issue that requires coordinated efforts of the government and people involved in the education and health sectors to coordinate resources, infrastructures, and attitudes (Holmes et al., 2021). Hence, some aspects of this issue may not have been mentioned in this study. Further qualitative and quantitative research is needed to determine the focus of interventions and intervention components. Furthermore, future studies can cover expanding health promotion programs and preparing for physical and psychological changes in OVC. It is also important to address the impact of the intersection of social and cultural issues in teenage girls' lives. The experience of under-supervised and unsupervised adolescent girls may have the potential to help girls to reach their human rights and progress to their maximum capacity.

Conclusion

Limitation and inadequate coping mechanisms and Behavior and psychological challenges in Orphans and Vulnerable Children need more attention. Hence, understanding these menstrual experiences can provide insight into special gender needs from the under-supervised and unsupervised adolescent girls' view to promote pleasant experiences help develop educational interventions, and prevent adverse outcomes in a lifetime. In conclusion, this study has several limitations that should be considered when interpreting the findings. Its qualitative design limits the generalizability of results, and restricted access to all residential care institutions nationwide may have narrowed the scope. The absence of a comparison group of non-institutionalized adolescent girls also constrains the breadth of interpretation, while the sensitive nature of the topic presents a risk of response bias. Despite these constraints, the findings highlight important directions for practice and policy. Recommendations include strengthening physical health management through regular medical check-ups focused on menstrual health, ensuring adequate hygiene facilities, and establishing protocols for managing menstrual pain and infections. Psychological support should be enhanced by offering regular counseling services, creating peer support groups, and providing stress management programs tailored to menstruation-related challenges. Educational interventions should address menstrual health comprehensively, dispel misconceptions, and train caregivers to better support adolescents. Institutional improvements are needed to create private spaces for personal care, ensure discreet access to menstrual products, and balance supervision requirements with privacy. Building on these findings, future research should explore comparative experiences between institutionalized and non-institutionalized adolescents, assess the effectiveness of educational interventions, and conduct longitudinal studies to track menstrual health experiences over time.

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CRedit authorship contribution statement

The corresponding author is responsible for every aspect of this research.

Declaration of Generative AI and AI-assisted technologies in the writing process

This study has not employed AI in this article.

Conflict of interest

The authors declare no conflict of interest.

Ethical considerations

The authors avoided data fabrication, falsification, and plagiarism, and any form of misconduct.

Data availability statement

Data available on request from the authors. Data supporting this study are not publicly available due to confidentiality and sensitivity. Please contact our-research-group@imperial.ac.ir.

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