Chhaupadi Practice in Chaukune Surkhet District through the Lens of Shamanism and Bandura's Social Learning Theory

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Abstract

This study explores the Chhaupadi practice in Chaukune, Surkhet District, Nepal, through the lenses of Shamanism and Bandura's social learning theory. It aims to investigate the socio-cultural factors that perpetuate this practice by employing qualitative method. It also seeks to understand the traditional beliefs and taboos and learned behaviors in sustaining Chhaupadi. For these purposes data were collected from a diverse group of 18 participants, including females aged 15 to 72, In-charge and nurse of the health post, Dhamis (traditional healers), and community leaders selected purposively. A valid semi-structured interview guideline was employed to capture responses from the participants using audio recorder. The collected data were transcribed applying ELAN software and then analyzed thematically with Atlas.ti. The study revealed that Chhaupadi persists due to the interplay of spiritual beliefs, social norms and taboos, and learned behaviors from the society. Additionally, menstruation is often misinterpreted through religious and superstitious beliefs rather than understood as a natural and biological phenomenon. Better health education, communication, awareness campaigns, and other initiatives are vital approaches to alter the mindset and behavior of the community people, particularly women and traditional healers in order to properly manage menstrual health.

Keywords: Chhaupadi, equality, isolation, justice, shamanism, social learning theory

Introduction

Chhaupadi, a deeply rooted tradition among Hindu communities across all castes and groups of Far and Mid-Western regions in Nepal regards menstruating women as "impure." The social taboos and belief on the menstruation lead to the isolation of menstruating women and girls in unsanitary conditions due to their perceived impurity (United Nations Resident and Humanitarian Coordinator's Office, 2011). It is a custom of social segregation in the far-western region of Nepal. Women and girls must live apart from the community, often in a livestock shed, when menstruating, and are not allowed to touch others or objects (Amatya et al., 2018).

This practice isolates women during their menstrual cycle and restricts their access to basic necessities and social interaction. This harmful tradition not only jeopardizes the

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health, dignity, and human rights of women but also violates gender equality (Panday et al., 2015). By segregating women and limiting their opportunities, Chhaupadi undermines their fundamental rights and perpetuates gender inequality. In addition to its immediate physical and psychological impact, Chhaupadi reinforces patriarchal power dynamics and perpetuates damaging stereotypes (Gurung et al., 2018).

The Chhaupadi practice reinforces traditional gender roles and the notion that women are impure during menstruation, further marginalizing them within society. Critical analysis of menstruation ritual in western Nepal offers valuable insights into the multifaceted nature of Chhaupadi, highlighting how cultural and religious beliefs intersect with social structures to continue this tradition (Panday et al., 2015). It explores how the practice is embedded within broader social norms and power dynamics revealing the complex web of factors contributing to its persistence. Existing studies have mainly focused on the health implications of Chhaupadi, highlighting its link to increased risks of infections, hypothermia, and maternal mortality (Shrestha et al., 2017). Also, there is a lack of research delving into the cultural and psychological aspects of the Chhaupadi practice applying Shamanism and Bandura's social learning theory. This gap necessitates a deeper exploration of how cultural and social structures sustain the Chhaupadi practice in the communities of western part of Nepal.

While we discussing about the theory 'shamanism', it is understood as a system of beliefs and taboos focused on spiritual energy and the natural world, provides a way to comprehend the religious and cultural roots of Chhaupadi. By exploring the prevalent shamanistic worldview in Nepal, this study aims to reveal how these beliefs have shaped the development and perpetuation of Chhaupadi. Besides, Bandura's theory of social learning offers understanding of how cultural practices like Chhaupadi are passed on and continued through watching and copying. Research on social learning has shown the significant impact of social context on behavior (Bandura, 1977). By applying this theory, the study seeks to identify the mechanisms through which the practice is learned and reinforced to sustain Chhapadi. In addition, this study offers a fresh perspective on Chhaupadi by combining insights from Shamanism and social learning theory, providing a more comprehensive understanding of the factors contributing to the persistence of this harmful practice.

This study aims to identify how cultural beliefs and practices related to menstruation are influenced by traditional and religious beliefs and the mechanisms of social learning that perpetuate this practice.

Methods

This study used the qualitative research approach to explore the social, cultural and psychological aspects of the Chhaupadi tradition in Western Nepal. Respondents were selected purposively embracing mainly the females who have experienced with Chhaupadi, Dhami (traditional healer), community leaders and health post staffs as shown

in table below. The participants' ages ranged from 15 to 72 years. Their views, thoughts, reactions, beliefs etc., related to the long-term ramifications of Chhaupadi practice and its impact on their lives were captured through interview using audio recorder.

SN	Respondents	Code	No of participant
1	Health Post In-charge	HPI	1
2	Nurse of Health Post	NHP	1
3	Female	F	10
4	Dhami	D	3
5	Community leaders	CL	3
	Total		18

Table 1

The collected data were transcribed by listening to participants' responses from a recording device using ELAN software and were subsequently translated into English. Next, we reviewed the transcript multiple times to gain a comprehensive understanding. The transcribed data were transferred into Atlas.ti software for analysis. Following that, codes were created from the collected data to categorize the information into significant groups. These codes were then merged into categories and developed into four themes. namely religious context of Chhaupadi, socio-cultural taboos and belief, social learning activities and Chhaupadi-driven impacts on women's health and well-being and then analyzed the data thematically. We used pseudo names of the respondents while analyzing data to protect the identity and privacy of individuals ensuring confidentiality.

Ethical Considerations

Ethical considerations were central throughout the study. Participants provided informed verbal consent, ensuring awareness of the study's purpose, risks, and benefits. To safeguard participant confidentiality, all names were altered during data analysis. We obtained participants' consent willingly, ensuring they understood the purpose and benefits of the research. We also took steps to protect their privacy and confidentiality, making sure any personal data were collected and stored safely and anonymously.

Results and Discussion

The Chhaupadi practice, deeply rooted in Hindu beliefs, involves isolating menstruating women and girls. Shaped by religious traditions, social taboos and replication of elder female relatives as well as other women of the society, this custom imposes severe restrictions on their lives, forcing them into isolation, denying access to basic necessities, and limiting social participation. The results and discussion are presented based on the themes generated as follows:

Religious Context of Chhaupadi

There are significant religious and cultural convictions associated with Chhaupadi. It is believed that women must adhere to the Chhaupadi customs during the 'impure' menstrual phase which is prompted strongly by the Dhami-Jhakrism or Shamanism.

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During an interview, a female participant, (F1) highlighted the impact of religious practices on familial duties, stating, "If the daughter-in-law is menstruating, even the son cannot perform the rituals for his deceased parents". Another female participant, (F9) elaborated, "It's believed that women should refrain from touching or entering the Kalika temple while menstruating to prevent divine dissatisfaction or negative consequences." Underscoring the link between menstruation and spiritual beliefs about purity, Giri (2019) asserts that women who protest or challenge the practice often face exclusion, societal stigma, and community backlash, compelling them to comply with the tradition. This highlights the social pressure and fear of ostracism that women face when they try to challenge the harmful practice of Chhaupadi. This fear often compels them to comply with the tradition, despite its negative consequences. Similarly, one of the community leaders, (CL1) stated, "Curd, milk, ghee; and the meat of animals sacrificed in temples are not allowed to be consumed by women during menstruation, as menstruation is considered impure."

The Chhaupadi tradition is linked mainly to Hindu beliefs, portraying menstruation as a "curse," and considering menstruating women as "impure." As a result, these women are barred from participating in typical religious rituals, which include entering their homes, prayer rooms, and temples (Amatya et al., 2018). It stigmatizes menstruation as impure, leading to the isolation and exclusion of menstruating women from daily life and religious ceremonies. In this regard, a participant, (F2) remarked, "Women should avoid touching trees while menstruating, as it is believed to cause the fruits to fall and spoil" demonstrating the cultural beliefs that connect menstruation with supernatural effects, which further reinforce women's removal from public spheres.

Socio-cultural Taboos and Belief

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The concept of "taboos" encompasses strong prohibitions or restrictions rooted in societal norms and cultural beliefs, often with deep historical foundations. In the case of menstruation in Nepal, these limitations are often considered taboos due to the enforcement through social pressure, fear of divine retribution, and established cultural traditions that dictate the conduct of menstruating women. This classification extends beyond mere beliefs, as taboos are usually accompanied by penalties or repercussions for failing to adhere (Houghton, 2015; Mathews, 2019).

Menstruation is often regarded as a taboo that women and girls must conceal to avoid feelings of shame and embarrassment (Merskin, 1999; Stubbs & Costos, 2004; Wong et al., 2013). Over 89 percent of women in Nepal experience some form of restriction and isolation during their menstrual periods (Kadariya & Aro, 2015; Karki et al., 2017).

The Dhami-Jhakris impose a culture of fear, ignorance, and quiet surrounding menstruation in the name of religion, culture, God, and reputation. These taboos go beyond mere beliefs, as they carry real-world consequences for those who violate them. A

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community leader, (CL2) viewed "Women must not attend social and religious events" Similarly, a female, (F4) stated, "Mensurating women are banned from marriage and going to temples." These highlight how widespread these taboos are and their detrimental effects on women's social engagement. The rationale behind these customs, which is linked to beliefs about impurity and contamination, further reinforces their classification as taboos instead of just beliefs, as taboos are typically rigorously maintained by societal frameworks and conventions (Sharma & Tamang, 2017). This discrimination emphasizes the significant impact of cultural narratives on women's lives, illustrating how taboos can perpetuate gender inequality and marginalization. The rituals performed by Dhami-Jhakris, who are believed to possess supernatural power particularly within indigenous and rural populations. Shamanism especially Jhankrism plays a vital role in the cultural and spiritual practices of Nepal, that led sustaining Chhaupadi still now in western Nepal.

In an interview, one of the female participants, (F10) stated, "Menstruating woman cannot stay in the house because of Dhami's rule in the village." This shows that, due to the influence of Dhami-Jhakri, menstruating women are forced to stay outside their homes during their menstrual periods. This practice is often linked to the belief that menstruating women are impure and can contaminate the household and its inhabitants.

Similarly, during interview, a female participant, (F3) said "Women go to Dhamis when they are sick, but they are not allowed to go to Dhamis during menstruation." Similar to this, the In-charge of the health post, (HP1) asserts, "Dhami-Jhankris play contributing role to continuing the Chhaupadi practice in the community." Dhami-Jhankris contribute to the continuation of the Chhaupadi practice by promoting superstitious beliefs and societal norms grounded in animism and the fear of divine punishment, which are central factors sustaining this harmful tradition. In this connection, a Dhami, (D1) shared, "When I went to India for work and stayed for nineteen months, my wife fell ill because of impurity practices in Nepal. In the end, both she and our cow died. Because of that fear, we accepted Chhaupadi practice."

No one has been able to remove it, despite efforts to eradicate it. This practice is likely to continue as long as there is faith in Dhami-Jhakri practices. During an interview a Dhami participant, Surya (D2) has reacted, "We are forced to confine menstruating women to a shed" Also, he recounted a personal experience, "I would do anything, even take medication, to prevent a menstruating woman from being in my home. I would rather die than disrupt this tradition." These remarks underscore the extreme measures individuals are willing to take to maintain these cultural norms, emphasizing the connection between health, personal sacrifice, and social influence. Sharma and Tamang (2017) supports the findings of this study that many in Nepal consider menstrual isolation is essential for preserving household purity, a sentiment echoed by various communities throughout Western Nepal.

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Many women believe that staying home during menstruation prevents illness. A female participant, (F4) expressed a stronger fear of divine retribution, stating, 'If you don't follow the rules at home, God will punish you with illness. What will you do?' This practice has been upheld across generations by Dhami-Jhankris and other spiritual figures, which reinforce the belief that menstrual blood and menstruating women bring bad luck if they enter sanctified household areas (Sharma & Tamang, 2017). Dhami-Jhankris and other spiritual leaders have kept this practice alive for generations by spreading the belief that menstruating women bring misfortune if they enter sacred spaces at home. In this connection, Amgain (2011) reveals this belief that menstrual women should not come in contact with sacred things once set on the processes of evolution of different socio-political systems. Thus, Dhami-Jjhakris play a crucial role in continuing Chhaupadi practice which is connected directly to the Shamanism.

Social Learning Activities

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The participants' insight highlighted the pervasive presence of Chhaupadi in local cultural practices, showing how it is passed down through generations and reinforced through observation and community support.

One of the female participants, (F5) stated, "I saw my mother sitting apart, which is why I started to mimic her." This exemplifies how young girls learn behaviors by watching older female relatives, such as their mothers, and then replicate those actions. This aligns with Bandura's Social Learning Theory (1977), which posits that individuals acquire behaviors through observing and imitating role models in their surroundings, particularly from family and community figures.

Likewise, another female participant, (F6) stated, "It is a conservative notion, but it is a tradition that our ancestors have upheld; thus, we are also embracing it." It indicates that Chhaupadi continues because of the acceptance and perpetuation of customs that are transmitted from one generation to the next. This implies that the community collectively supports the practice, not solely due to personal convictions but also because of the communal reinforcement of traditional customs. Furthermore, a Dhami participant, (D3) commented, "We have not discarded what our ancestors have imparted to us" reinforcing the profound respect for ancestral wisdom that sustains the persistence of Chhaupadi. These observations emphasize how Chhaupadi is woven into the community's social structure and is transmitted through both individual learning and collective support, as mentioned by Puri et al. (2011).

The drive to conform to Chhaupadi is influenced by both positive and negative incentives within the community. Another female participant, (F7) remarked, "No one dares to disobey the elders", underscoring the considerable social pressure and authority wielded by elders in the community. This pressure serves as a strong motivator for compliance, where disobeying is not only discouraged but may also result in social repercussions. In

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addition, next female participant, (F8) said, "understanding of Chhaupadi was shaped by observing and imitating older women in her community." This highlights the significance of observational learning, as young girls imitate the behaviors of those they regard as authority figures, especially older women. According to Social Learning Theory (Bandura, 1977), this process enables young girls to internalize practices like Chhaupadi as normative behavior. They observe the isolation and limitations imposed on menstruating women and gradually start to perceive these practices as expected and natural. The aspects of community cohesion and cultural identity further impact adherence to Chhaupadi.

Chhaupadi-driven Impacts on Women's Health and Well-being

As stated, women are frequently confined to 'Chhaupadi Goth' or cattle sheds where they live under very rudimentary, unsanitary, and exposed circumstances. These harsh conditions adversely affect their health and contribute to increased susceptibility to various illnesses, including diarrhea, pneumonia, and respiratory diseases (United Nations Resident and Humanitarian Coordinator's Office, 2011).

A community leader, (CL2) emphasized the risks associated with insufficient shelter during menstruation, particularly in winter, saying, "During menstruation, especially in winter season, due to excessive exposure to the water and no proper shelter, diseases like cold and pneumonia have been reported." This statement supports research findings that link the unsanitary conditions of Chhau Goth (the isolation huts) to increased health risks, including respiratory infections, pneumonia, and hypothermia, particularly during colder months. Furthermore, the health post nurse, (NHP) shares the physical health challenges that women often experience during menstruation in the winter, stating, "Lower abdominal pain, back pain, uterine prolapse, and common cold are problems faced by women during menstruation in winter." This emphasizes that women's menstrual health can be particularly vulnerable during winter season.

These concerns align with research conducted by Ranabhat et al., (2015), which indicates that prolonged exposure to harsh environmental conditions and involvement in strenuous physical activities during menstruation elevate the risk of reproductive health complications, such as uterine prolapse and pelvic inflammatory disease. These health issues highlight the threats posed by Chhaupadi, where women and girls suffer not only from emotional and social seclusion but also from considerable physical damage due to inadequate and unsafe shelter and environmental exposure.

Conclusion

Chhaupadi, a deeply rooted and ancient practice in certain rural areas of Nepal, discriminates against menstruating women by mandating their isolation in unsafe environments due to cultural and religious beliefs that consider menstruation to be impure. This analysis demonstrates that the tradition is maintained not only through societal

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pressures and shamanistic ideologies but also via cultural transmission, as explained by Bandura's social learning theory. Young girls learn these behaviors by observing their elders, which leads them to accept Chhaupadi as a natural part of their lives, embedding it into the social dynamics of their communities. The physical consequences for women confined to unsanitary huts are dire, leaving them vulnerable to life-threatening conditions such as respiratory infections, hypothermia, and attacks from animals. The mental health impact is equally concerning, with numerous women and girls facing issues like anxiety, depression, and post-traumatic stress disorder (PTSD) stemming from the stigma and social exclusion associated with Chhaupadi. Furthermore, Chhaupadi hinders women's access to education and job opportunities, thus reinforcing their reliance on male family members and perpetuating gender inequality. This malpractice restricts women's ability to go to school, pursue employment, and partake in community activities, which has lasting effects on their independence and future opportunities. This exclusion strengthens patriarchal structures that support Chhaupadi, positioning women's roles as inferior and constraining their potential. A comparative view on menstruation in other cultures, where it is celebrated instead of shamed, highlights how cultural narratives influence the understanding of womanhood. To effectively tackle Chhaupadi, a comprehensive approach is essential, incorporating legal reforms alongside community education and involvement. Fostering economic independence and education for women, raising awareness about health hazards, and engaging key community figures in advocacy are crucial initiatives for dismantling this detrimental tradition. By addressing the interconnected cultural, social, and economic factors, Nepal can progress toward abolishing Chhaupadi and enhancing women's rights and welfare.

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References

- Amatya, P., Ghimire, S., Callahan, K. E., Baral, B. K., & Poudel, K. C. (2018). Practice and lived experience of menstrual exiles (Chhaupadi) among adolescent girls in far-western Nepal. *PLOS ONE*, 13(12), e0208260. https://doi.org/10.1371/journal.pone.0208260.
- Amgain, B. (2011). Social dimension of the Chhaupadi system: A study from Achham District, Far West Nepal. Social Inclusion Research Fund (SIRF), SNV Nepal.
- Amgain, B. (2017). Social Dimension of Chhaupadi System: A Study from Achham District, Far West Nepal. Social Inclusion Research Fund (SIRF) SNV Nepal. Retrieved from http://www.sirfnepal.org/wp-content/uploads/2017/10/Social-Dimension-of-Chhaupadi-System-A-Study-from-Achham-District-Far-WestNepal.pdf

- Bandura, A. (1977). Social learning theory. Prentice-Hall. https://psycnet.apa.org/record/ 1979-05015-000.
- Chaudhary, A. (2023). The menstrual impurity of women and girls: Chhaupadi practice and resistance. *Asian Journal of Population Sciences*, 2(1), 90–106. https://doi.org/ 10.3126/ajps.v2i1.51094
- Deslierres, J. (2013). Chaupadi is still being practiced in Western Nepal. http://www.examiner.com/article/chaupadi-is-still-being-practiced-western-nepal.
- Giri, B. (2019). Evolution of cultural practices in Nepal: A study on Chhaupadi. *Journal* of Nepalese Studies, 12(1), 78–95. https://doi.org/10.3126/jns.v12i1.2550
- Gurung, S., Bhandari, D., & Thapa, S. (2018). Menstrual practices and women's health in Nepal: A review of literature. *Journal of Nepal Health Research Council*, 16(2),186192.
 https://nepal.unfpa.org/sites/default/files/pubpdf/Literature%20Review%20on%20M enstrual%20Hygiene%20Management%20in%20Nepal.pdf (not found)
- Houghton, R. (2015). Menstrual taboos and their socio-cultural implications. *Journal of Gender Studies*, 12(3), 45–60.
- Kadariya, S., & Aro, A. R. (2015). Chhaupadi practice in Nepal-analysis of ethical aspects. *Medicolegal and Bioethics*, 5, 53.
- Karki, K. B., Poudel, P. C., Rothchild, J., Pope, N., Bobin, N. C., Gurung, Y., & Sherpa, L. (2017). Scoping review and preliminary mapping menstrual health and hygiene management in Nepal. Lalitpur, Nepal: Population Services International Nepal https://www.researchgate.net/publication/318393272.
- Khadka, N. (2020). Chhaupadi Pratha: Women's experiences and perceptions about social suffering. *Molung Educational Frontier*. 81-92. 10.3126/mef.v10i1.34031.
- Mathews, L. (2019). Cultural traditions and the policing of menstrual practices in South Asia. *International Journal of Social and Cultural Studies*, 8(2), 123–138
- Merskin, D. (1999). Adolescence, advertising, and the ideology of menstruation. Sex Roles, 40(11-12), 941–957. doi:10.1023/A:1018881206965
- Mukherjee, A., Lama, M., Khakurel, U., Jha, A. N., Ajose, F., Acharya, S., Tymes Wilbekin, K., Sommer, M., Jolly, P. E., Lhaki, P., & Shrestha, S. (2020). Perception and practices of menstruation restrictions among urban adolescent girls and women in Nepal: A cross-sectional survey. *Reproductive Health*, 17(1), 81. https://doi.org/10.1186/s12978-020-00935-6
- Pandey, S., Adhikari, R., Devkota, S., & Regmi, R. (2015). Chhaupadi: A discriminatory practice against women's health and dignity in Nepal. *International Journal of Women's Health*, 7, 747–752. https://doi.org/10.2147/IJWH.S89245

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- Puri, M., Tamang, J., & Shah, I. (2011). Exploring the nature and reasons associated with Chhaupadi practice in Nepal. *Journal of Biosocial Science*, 43(6), 1–15. https://doi.org/10.1017/S0021932011000329
- Ranabhat, C., Kim, C. B., Choi, E. H., Aryan, A., Park, M., & Doh, Y. A. H. (2015). Chhaupadi culture and reproductive health of women in Nepal. *Asia-Pacific Journal* of Public Health, 27(7), 785–795. https://doi.org/10.1177/1010539515602743
- Roberts, T. A., Goldenberg, J. L., Power, C., & Pyszczynski, T. (2002). "Feminine Protection": The effects of menstruation on attitudes toward women. *Psychology of Women Quarterly*, 26, 131–139. doi:10.1111/1471-6402.00051
- Robinson, H. (2015). Chhaupadi: The affliction of menses in Nepal. International Journal of Women's Dermatology, 1(4), 193–194. https://doi.org/10.1016/j.ijwd. 2015.10.002
- Sharma, P., & Tamang, R. (2017). The role of spiritual leaders in perpetuating menstrual taboos in Nepal. *Himalayan Journal of Cultural Studies*, 5(1), 67–82.
- Shrestha, B., Thapa, S., & Gurung, R. (2017). The effects of menstrual stigma on women's mental health in Nepal. *International Journal of Public Health*, 62(6), 725-734. https://doi.org/10.1007/s00038-017-0963-9
- Sherpa, L. Y., Basnet, M., Poudel, M., Gurung, Y., Tamang, L., Paudel, R., Ghimire, S., Tamang, S., Rothchild, J., & Butler, C. (2017). PSI: Menstrual hygiene in Nepal -Peer ethnographic study (Issue 2).
- Stubbs, M. L., & Costos, D. (2004). Negative attitudes toward menstruation: Implications for disconnection within girls and between women. *Women & Therapy*, 27(3–4), 37–54. doi:10.1300/J015v27n03 04
- Thapa, B., & Tulachan, P. M. (2018). Chhaupadi: A social practice that discriminates women in Nepal. Journal of Karnali Academy of Health Sciences, 2(2), 110-115.
- United Nations Resident and Humanitarian Coordinator's Office. (2011). Chhaupadi in the Far-West. *Field Bulletin*, *1*. http://www.ohchr.org/Documents/Issues/Water/ContributionsStigma/others/field_bulletin_-issue1_april_2011-_chaupadi_in_far-west.pdf
- Wong, W. C., Li, M. K., Chan, W. Y. V., Choi, Y. Y., Fong, C. H. S., Lam, K. W. K., & Yeung, T. Y. (2013). A cross-sectional study of the beliefs and attitudes towards menstruation of Chinese undergraduate males and females in Hong Kong. *Journal of Clinical Nursing*, 22(23–24), 3320–3327. https://doi.org/10.1111/jocn.12462