



EXPLORING THE STATE OF SPOUSAL COMMUNICATION AMONG SHIFT WORKERS: A CASE STUDY OF HEALTH SECTOR WORKERS IN CAPE COAST, GHANA.

Gyasi, K. W.

Department of Communication Studies, University of Cape Coast, Cape Coast, Ghana
william.gyasi@ucc.edu.gh

ABSTRACT

Purpose: The study investigated spousal communication among shift workers in the health sector in Cape Coast, Ghana. The research was aimed at examining the association between different shift-work schedule types and three spousal communication parameters: frequency, quality, and satisfaction.

Design/Methodology/Approach: This study adopted a quantitative research approach and a cross-section survey design. A survey of 128 married shift workers across three urban health facilities participated in the study. The participants responded to the questionnaire instrument and the collected data was processed through the use of quantitative tools. The researcher utilized box plots as well as analyses of variance to discuss the relationships between communication parameters and shift schedules of participants.

Findings: The researcher found that the frequency, quality, and pleasure of spousal communication might not be inherently impaired by shift work. The study also found no significant differences in schedule types between rotating and fixed shifts, nor did the direction of rotation impact quality. It is concluded that variables other than shift type may affect couples, including cultural influences, social support, and personal coping mechanisms.

Research Limitation/Implications: The findings of this research are limited to the opinions of the participants, which means that the results may not be generalized to other contexts.

Practical Implication: There is a need for hospitals to consider scheduling spouses outside the afternoon schedule since it has a significant effect on the frequency of spousal communication.

Social Implication: The study encourages reexamining shift work's effects in different cultural contexts and suggests tailored interventions to support shift workers.

Originality/Value: The study is based on the design and implementation of the researcher, and there is no evidence of publication of this work in any other journal by either the researcher or others. The work is an original piece and there is no other contributor aside from the researcher.

Keywords: *Couples. health work. shift schedules. shift-workers. spousal communication*

INTRODUCTION

Spousal communication is a vital component of marital quality and satisfaction. It involves the exchange of verbal and non-verbal messages between spouses that convey information, emotions, needs, and expectations. Spousal communication can influence various aspects of marital functioning, such as intimacy, conflict resolution, support, and well-being (Horstman, & Holman, 2018). However, spousal communication is not a static or uniform phenomenon. It can vary depending on many factors, such as personality, culture, context, and life stage. One of the factors that may affect spousal communication is the work schedule of the spouses, especially if they are shift workers.

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Shift work is explained as any work schedule that involves working outside the normal daytime hours of 7 am to 6 pm (NHS Employers, n.d.). Shift work is common in the health sector, where many healthcare workers have to provide continuous care to patients who need round-the-clock monitoring and treatment. Shift work can have many benefits for healthcare workers, such as flexibility, autonomy, and higher income. However, shift work also has negative impacts on their health, safety, and wellbeing, such as disrupting their circadian rhythm and sleep quality, increasing their risk of physical and mental disorders, affecting their social and family life, and impairing their performance and safety at work (NHS Employers, 2020).

Shift work also affects the spousal communication of healthcare workers in various ways. For example, shift work can reduce the quantity and quality of spousal communication by creating temporal and spatial barriers between spouses, such as different or irregular working hours, reduced time at home or in bed together, or increased fatigue or stress (Ausmed, 2019). The physical and emotional demands of shift work, particularly in high-stress environments such as healthcare, can lead to exhaustion. This exhaustion can further strain spousal communication, as healthcare professionals may struggle to engage in meaningful conversations and emotionally connect with their spouses after long and demanding shifts. Over time, this strain can potentially lead to decreased job satisfaction, marital discord, and adverse mental health outcomes, such as stress and burnout (Bezerra, 2020).

Besides, shift work can also affect the content and style of spousal communication by creating gaps or conflicts in the understanding and expectations of spouses, such as different or incompatible views on work-related issues, household responsibilities, leisure activities, or parenting roles (Ausmed, 2019). In the specific context of Cape Coast, Ghana, it is crucial to explore how these global and sector-specific factors intersect with local cultural and societal norms. Ghanaian society, like many others, places a high value on family life and marital relationships. However, the societal and cultural norms in Ghana may influence the dynamics of spousal communication among shift workers in the health sector in unique ways. For instance, societal expectations about gender roles and family responsibilities may add another layer of complexity to the challenges faced by these couples (Shah, 2023).

Despite the critical role that effective spousal communication plays in maintaining healthy marital relationships, there is a significant gap in research exploring this issue among shift workers in the health sector, particularly in the context of Cape Coast, Ghana. There is limited empirical evidence on how spousal communication is affected by shift work in the health sector in Ghana. Most of the existing studies on spousal communication in Ghana have focused on general issues such as marital satisfaction, conflict management, fertility preferences, or family planning (e.g., Adjei et al., 2014; Bingenheimer & Asante-Sarpong, 2015; Doku & Asante-Sarpong, 2016), rather than on specific issues related to shift work. Moreover, most of the existing studies on spousal communication have used qualitative methods that may capture the richness and complexity of spousal communication in different contexts and situations but may not provide generalizable and measurable results. Therefore, there is a need for a quantitative study that measures how spousal communication is affected by shift work in the health sector in Ghana using standardized and validated instruments. Such a study would complement the literature on spousal communication and shift work in low-middle-income countries, as well

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as provide evidence for policymakers and practitioners who aim to improve the health and well-being of shift workers and their families.

However, a majority of studies to date have focused on Western contexts. There remains limited rigorous evidence on shift work and marital communication within the understudied cultural setting of Ghana, particularly among health sector employees. Examining this population can provide greater insight into the complex interplay between shift schedules and spousal communication patterns within the Ghanaian milieu. The research aimed to determine differences in satisfaction with spousal communication between different shift-work schedule types the relationship of these schedule types with spousal communication frequency, and the quality of spousal communication.

OVERVIEW OF SHIFT WORK AND SPOUSAL COMMUNICATION

Observational studies like Reems et al. (2020) videotaped shift-working couples discussing a marital problem finding lower positive communication compared to non-shift workers. Story and Repetti (2006) also used observational coding of couples' interactions, finding shift workers displayed behaviour that is more withdrawn and less warm. Longitudinal designs can assess changes over time. Therefore, Liu et al. (2011) surveyed Chinese nurses annually, finding increased emotional exhaustion and deteriorating marital quality over 5 years. Barton and Folkard (1993) examined British nurses over 2 years, finding rapidly rotating shifts associated with reduced marital, social, and home life quality. Some studies incorporate both partners' perspectives. Veroff et al. (1981) surveyed both husbands and wives, finding husbands' unstable work hours linked to marital dissatisfaction for both spouses. Wives were also less satisfied if working unpredictable hours. Regarding outcomes, Gordon et al. (2007) found U.S. nurses on unstable schedules reported more marital dissatisfaction and symptomatology. Steenbeck and Askoll (2021) uncovered an increased risk of divorce and decreased marital happiness for shift workers in a U.S.-representative longitudinal dataset. Cultural factors may play a role. Zhao et al. (2021) studied Chinese doctors, finding shift work positively associated with work-family conflict, which predicted reduced marital satisfaction over 12 months. Kaya et al. (2019) also found that Turkish nurses on rotating shifts reported lower marital adjustment as compared to permanent shift nurses. Some studies find positive or no effects. White and Keith (1990) surveyed shift and non-shift workers finding no differences in marital satisfaction. Tucker et al. (1998) also found shift work had little impact on marital quality in Singaporean electronics workers.

Shift Work and Spousal Communication: The Ghanaian Context

While a growing body of research examines shift-work impacts in Western nations, few studies have focused specifically on Ghana. However, the Ghanaian cultural context may have important implications. For instance, Oteng-Ababio (2012) found that Ghanaian nurses rely heavily on social support from spouses as a coping mechanism against work stress. Disruption of spousal communication could cut off a critical emotional outlet. Qualitative research provides some insights. Owusu (2018) interviewed Ghanaian nurses and midwives, finding alternating work shifts contributed to communication gaps, marital discord, and sexual dissatisfaction. Participants felt unable to discuss problems openly with their partners. Quantitative evidence remains limited.

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Ejebu et al. (2022) recently surveyed Ghanaian nurses, finding those on rotating versus permanent shifts reported higher household conflict and more negative work-life balance. However, the links between shift schedules and communication patterns specifically are least explored. The limited data indicates Ghanaian health workers likely face marital communication challenges due to shift work similar to other contexts. However, the need to play both breadwinner and domestic roles makes work-life balance particularly difficult for women in Ghana (Coleman, 2018). Rotating shifts may exacerbate domestic tensions. In-depth mixed-methods studies examining how shift schedules relate to various dimensions of spousal communication could provide valuable insights. Findings could inform culturally appropriate interventions to support couples in Ghana's health sector who are struggling with shift-work strain. Limitations of current literature include reliance on self-reports, lack of longitudinal data, and insufficient context-specific evidence. Various biases may be present.

While the current body of empirical research reveals valuable insights, there is a need for greater theoretical grounding to frame examinations of shift-work and spousal communication. Applying relevant conceptual models can help elucidate the mechanisms through which shift schedules may affect couples' relationships and communication patterns. Theories can also generate testable hypotheses to advance this field of study. Some frameworks with potential applicability include the work-family border theory, the circumplex model of marital and family systems, and the job demands-resources model. By integrating appropriate theoretical lenses, researchers can develop more systematic, generalizable knowledge on managing the work-family interface for shift workers and their spouses. Theoretical frameworks can guide not only the analysis of problems but also the conceptualization of solutions, interventions, and policies to support this population. Next, a few potentially relevant theories are discussed concerning deepening understanding of shift work and communication in marriages.

Theoretical Framework

Work-family border theory

This theory examines how individuals transition between the domains of work and family, focusing on boundaries and border-crossers (Clark, 2000). The theory suggests schedule misalignment between spouses hinders border crossing. A key hypothesis is that greater work/family role segmentation leads to more marital conflict (Gupta & Jenkins, 1985). This framework provides a lens to examine how rotating shifts may increase segmentation and impede communication between spousal roles. It points to integration strategies like schedule coordination and family rituals to smooth the border crossing.

The work-family border theory is understandable within the theoretical prepositions of the circumplex model. The circumplex model conceptualizes marital and family systems along two dimensions - cohesion and flexibility (Olson, 2000). Cohesion involves emotional bonds, while flexibility refers to the ability to adapt to change. The model categorizes couples into balanced, mid-range, and extreme types. Shift work may force couples from balanced into extreme zones. This lens generates hypotheses on links between shift types and cohesion/flexibility issues. Interventions could aim to enhance cohesion and flexibility to offset shift schedule challenges. In summary, applying relevant theories allows for systematic investigations of the multifaceted issues, which affect shift workers' marriages. Theories provide conceptual models to understand problems and derive interventions rooted in empirical research and sound

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theoretical grounding. Further integration of theories like these can enrich the knowledge base to support shift workers and their spouses.

METHODOLOGY

Research Design

This study utilized a quantitative cross-sectional survey design. This enabled the collection of numerical data to quantify spousal communication frequency, quality, and satisfaction among the target population at a specific point in time. The cross-sectional design provided an economic and time-efficient approach to capture a snapshot of the key variables.

Research Site

This study was conducted in the Cape Coast metropolitan area, located in the Central Region of Ghana. Cape Coast is a historic coastal city known for its slave trade landmarks like Cape Coast Castle. Fishing and tourism are major industries. The city has a population of 189,925 (Ghana Statistical Service, 2021). Cape Coast was selected as the study area due to its concentration of major public hospitals serving the Central Region. The three major hospitals included in the study were Cape Coast Teaching Hospital, Metropolitan Hospital, and Ewim Polyclinic. These facilities employ a significant number of shift workers to provide 24-hour care.

Target Population and Sample Size

The target population for this study was married shift workers in the health sector in Cape Coast, Ghana. This included healthcare professionals such as nurses, doctors, paramedics, lab technicians, and other allied health staff working in hospitals, clinics, and health centres in the Cape Coast metropolitan area. The accessible population comprised married shift workers across the three major public hospitals in Cape Coast - Cape Coast Teaching Hospital, Metropolitan Hospital, and Ewim Polyclinic. The total population of married shift healthcare workers across these facilities is approximately 800 based on human resources records.

A convenience sampling technique was used to recruit participants for this study. This non-probability method was chosen due to the accessibility and availability of respondents during their shift duties. Cochran's (1977) sampling formula for smaller populations was used to target a sample of 260 health workers (at a confidence interval of 95% and a 5% margin of error). However, only 128 of the targeted sample consented to participate in this study, resulting in a 49% approximate response rate. This sample size was determined using Cochran's formula for categorical data, with a 95% confidence level and 5% margin of error.

Data Collection Instrument

A structured questionnaire was developed to collect data on respondents' demographic characteristics, shift-work parameters, and spousal communication parameters. Standardized scales were adapted from prior marital communication studies to measure the frequency of, quality of, and satisfaction with communication. Using validated scales enhanced reliability and consistency.



Data Collection Procedure

Approval was obtained from hospital administrators and informed consent was acquired from participants. Questionnaires were distributed to shift workers in their workplaces during break times. Research objectives and confidentiality were explained verbally and through an information sheet. Participants anonymously completed the questionnaires, which were retrieved after 15-20 minutes. This provided an efficient data collection approach respecting respondents' limited availability during work shifts.

Data Analysis

Quantitative data was analyzed using IBM® SPSS® Statistics. Descriptive statistics, presented as box plots provided summaries of sample characteristics and responses. ANOVA was used to test differences in communication frequency by shift type. T-tests were used to compare communication satisfaction between fixed and rotating shifts.

Ethical Considerations

Approval was obtained from relevant hospital authorities and the University of Cape Coast's College of Humanities Research Ethics Committee. Informed consent was secured from each participant. Anonymity and confidentiality were ensured through the collection of no identifying information. Participants were informed of their voluntary involvement and ability to withdraw. These measures conform to ethical guidelines for social science research.

RESULTS AND DISCUSSION

Spousal Communication

The schedules within the health sector in Ghana range from day to night. A box plot comparison of spousal communication frequency scores across shift categories shows the median score is highest for permanent day shift couples, followed by permanent evening shift, then rotating shift couples. The permanent night shift had one outlier with a low communication score. The permanent day shift box is longer, indicating more variability in communication scores, likely because this is the most common shift with a wider range of couples. The evening and rotating shift boxes are shorter, suggesting less variability and more similarity in those groups' communication frequencies. The outlier suggests the night shift couple has substantially lower communication frequency, potentially due to night shift stressors or personal factors.

Overall, the box plot indicates predictability of a permanent day shift may benefit spousal communication frequency, as these couples had the highest median score. However, the subsequent ANOVA found no statistically significant difference between the means of the different shift categories ($F=0.387$, $p=0.7629$), though minimal variation exists. The high p -value implies insufficient evidence to reject the null hypothesis of no difference. Further study with a larger sample may better elucidate the relationship between shift schedules and spousal communication frequency. Figure 1 provides a visual representation of spousal communication across different shift-work categories.

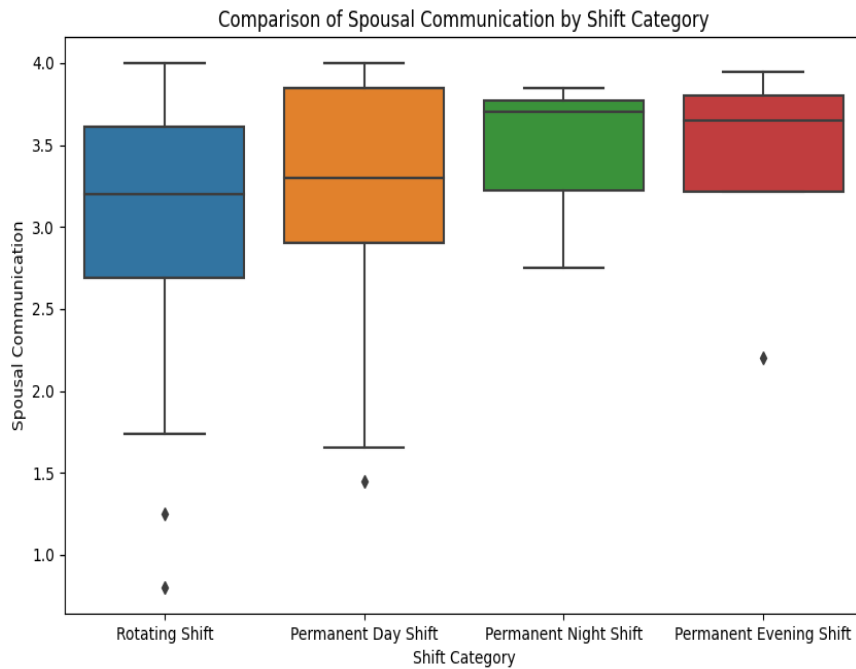


Figure 1: Comparison of Spousal Communication Frequency by Shift Category

Quality of Spousal Communication

The box plot comparison (Figure 2) of spousal communication quality across shift rotation directions shows couples in alternating rotation had the highest median score, followed by forward rotation couples. Backward rotation couples had the lowest median communication quality, as well as some outliers indicating substantially lower quality. The tighter interquartile range for alternating rotation suggests less variability and more consistency in communication quality for these couples.

However, the subsequent ANOVA found no statistically significant relationship between shift rotation direction and spousal communication quality ($F=0.717$, $p=0.5822$). The F-statistic of 0.717 implies minimal differences between groups compared to within groups. Additionally, the high p-value indicates insufficient evidence to reject the null hypothesis of no difference based on rotation direction.

While the box plot shows some variation in median scores between groups, the ANOVA results do not demonstrate significant differences in the means of communication quality across shift rotation types. The lack of significance may be attributed to limitations like the small, localized sample. Further studies on a broader population are needed to better understand how shift rotation direction relates to spousal communication quality.

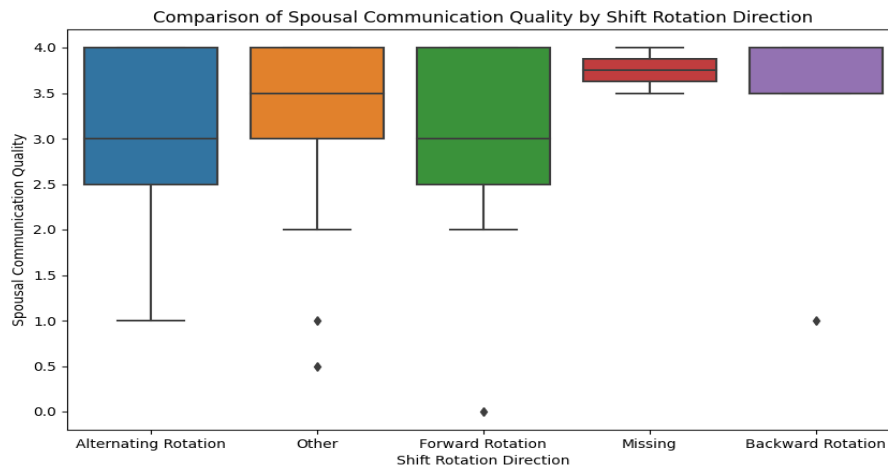


Figure 2: Comparison of spousal communication by shift rotation

Satisfaction with Spousal Communication

A box plot (Figure 3) comparison of spousal communication satisfaction between fixed and rotating schedules shows couples on fixed schedules had a higher median score than rotating schedule couples. The interquartile range was also smaller for fixed-schedule couples, indicating less variability in satisfaction. However, the box plot showed some outliers among rotating schedule couples with substantially lower satisfaction.

Despite the differences seen in the box plot, the subsequent t-test found no statistically significant difference in communication satisfaction between fixed and rotating schedule groups ($t=1.276$, $p=0.2046$). The t-statistic of 1.276 suggests minimal actual variation between the groups. Additionally, the p-value above the significance level implies insufficient evidence to reject the null hypothesis of no difference.

While the box plot shows higher median satisfaction for fixed-schedule couples, the t-test results do not demonstrate significant differences in the means of communication satisfaction between schedule types. The lack of significance may be due to limitations like the small, localized sample. Further studies on a broader population could provide more clarity on how shift schedules relate to spousal communication satisfaction. Figure 3 provides a visual representation of the satisfaction with spousal communication between shift workers on fixed and rotating schedules.

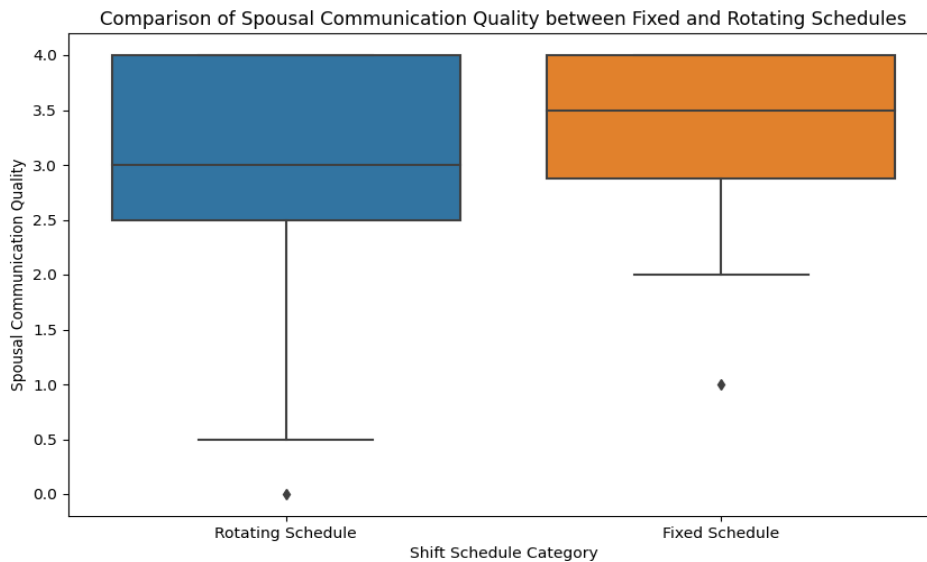


Figure 3: Comparison of spousal communication quality between fixed and rotating schedules

Discussion

The results of this study provide insight into the impacts of shift work on spousal communication frequency, quality, and satisfaction among health sector employees in Cape Coast, Ghana.

The findings suggest that the type of shift-work schedule does not have a significant impact on spousal communication among shift workers. This finding contradicts some of the existing theories and literature that propose a negative association between shift work and spousal communication (Silva & Costa, 2023; Brown et al, 2020). However, it is consistent with other studies that have found no difference or even positive effects of shift work on spousal communication (Ejebu, Dall’Ora & Griffiths, 2022). Therefore, the relationship between shift work and spousal communication may be influenced by other factors, such as individual characteristics, coping strategies, social support, and cultural norms.

It can be inferred from the findings of this research question that, theoretically, the results challenge the assumption that shift work is inherently detrimental to spousal communication and suggest that other factors may moderate or mediate this relationship. Practically, the results imply that shift workers and their spouses may benefit from interventions that enhance their communication skills and needs, such as counselling, education, and support groups. Additionally, employers and policymakers may consider implementing flexible and family-friendly work arrangements that accommodate the preferences and needs of shift workers and their spouses.

Regarding communication quality, the findings from the present work indicate that the direction of rotation in shift work does not have a significant effect on the quality of spousal communication among shift workers in the health sector in Cape Coast, Ghana. This finding is contrary to some of the existing literature that suggests that forward rotation is preferable to

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backward or alternating rotation for spousal communication (e.g., Presser, 1986; Smith et al., 1998). However, it is in line with other studies that have found no difference or mixed results between different rotation directions (e.g., Costa et al., 2006; Parkes, 2002). Therefore, the quality of spousal communication may depend on other factors, such as individual preferences, coping mechanisms, social support, and cultural values.

Theoretically, the results challenge the assumption that forward rotation is superior to backward or alternating rotation for spousal communication and suggest that other factors may moderate or mediate this relationship. Practically, the results imply that shift workers and their spouses may benefit from interventions that enhance their communication skills and needs, such as counselling, education, and support groups. Additionally, employers and policymakers may consider implementing flexible and family-friendly work arrangements that accommodate the preferences and needs of shift workers and their spouses.

It has been found in the present study that spousal communication does not differ significantly between shift workers on fixed schedules and those on rotating schedules in the health sector in Cape Coast, Ghana. This finding is surprising, given that some of the existing literature suggests that rotating schedules are more disruptive and stressful for spousal communication than fixed schedules (e.g., Presser, 1986; Smith et al., 1998). However, it is consistent with other studies that have found no difference or mixed results between schedule types (e.g., Costa et al., 2006; Parkes, 2002). Therefore, satisfaction with spousal communication may depend on other factors, such as individual characteristics, coping strategies, social support, and cultural norms.

The findings of this study have some theoretical and practical implications for understanding and improving the well-being of shift workers and their spouses. Theoretically, the results challenge the assumption that fixed schedules are superior to rotating schedules for spousal communication and suggest that other factors may moderate or mediate this relationship. Practically, the results imply that shift workers and their spouses may benefit from interventions that enhance their communication skills and needs, such as counselling, education, and support groups. Additionally, employers and policymakers may consider implementing flexible and family-friendly work arrangements that accommodate the preferences and needs of shift workers and their spouses.

CONCLUSION AND RECOMMENDATIONS

Results showed no statistically significant differences between groups on any of the spousal communication outcomes. The findings challenge assumptions that certain shift types like rotating schedules necessarily have negative impacts. Instead, they suggest other variables like individual coping skills and cultural norms likely moderate how shift work affects couples.

In conclusion, shift work may not have inherent negative effects on spousal communication frequency, quality, or satisfaction. No significant differences were found between schedule types for the Ghanaian health workers sampled. The lack of significant findings disputes notions that certain shift rotations or schedules are optimally better or worse for communication. Rotation direction did not affect quality, and no difference was found between fixed and rotating shifts. The study provides impetus to re-examine assumptions about shift

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work's negative relationship effects. More research is needed on potential positive impacts and nuances within different cultural contexts. Practical interventions to support shift workers should focus on enhancing couples' communication skills in personalized ways, rather than imposing universal solutions based on shift type.

The following recommendations are proposed. Employers should provide training and counselling programs tailored to enhancing communication skills for shift workers and their spouses. This can equip them with strategies for maintaining healthy relationships despite work schedule challenges. Secondly, policymakers should implement regulations enabling flexible work arrangements that accommodate the diverse needs and preferences of shift worker families. This can help reduce work-life conflict. Thirdly, further studies are needed on the potential positive impacts of shift work on identifying factors that may moderate its effects on relationships. Studies across different cultural contexts can provide more generalized insights. Furthermore, interventions aimed at supporting shift worker communication should be tailored based on individual needs assessments rather than standardised ones. A one-size-fits-all approach may not address the diversity of couples' needs and circumstances. Communication training programs should build skills for listening, self-expression, conflict resolution, and emotion regulation to help cope with shifting schedule demands.

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