Determinants of sickness presenteeism: Empirical evidence from Ghana

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Abstract

The study explored the impact of demographic factors (gender, age, educational qualification, income, employment type, and position) on sickness presenteeism in Ghana. Using a one-way independent sample analysis of variance (ANOVA), the study found that the gender, age, and educational qualification of Ghanaian workers did not have a significant effect on sickness presenteeism. However, the study found that the income of employees in Ghana had a significant impact on sickness presenteeism. Furthermore, the study revealed that the employment type of employees had a significant impact on presenteeism among Ghanaian workers. Lastly, the findings revealed that the level of management employees operate in has a significant impact on sickness presenteeism. Further analysis revealed that the self-employed and employees at the executive level recorded higher sickness presenteeism. The study concludes by admonishing employers to create a culture that prioritises employee health, as it will consequently enable them to achieve their business goals.

Key words: Gender, age, education, income, employment type, management

Introduction

Sickness presenteeism is an issue that is given a lot of attention in occupational health (Jung et al., 2020). Sickness presenteeism can be defined as when employees report to work though they are sick and are unable to effectively perform their job duties (Rainbow et al., 2020). Dew, Keefe and Small (2005) also defined sickness presenteeism as when employees who are not mentally or physically well are compelled to come to work despite their health problems. Sickness presenteeism has been found to negatively affect work performance, productivity, job satisfaction and work ability and increase mental and physical health complaints and financial burdens

(Aysun & Bayram, 2017; Brborovic et al., 2017; Jung et al., 2020; Karanika-Murray et al., 2015; Lu & Cooper, 2018; Miraglia & Johns, 2016).

Past studies have shown that presenteeism due to sickness can lead to later serious health problems (Gustafsson & Marklund, 2011; Hansen & Andersen, 2009; Taloyan et al., 2012), and this consequently affects the financial costs of the firm in the long term (Dew et al., 2005). Effectively managing sickness presenteeism can therefore be a competitive advantage to organisations as it prevents low productivity (Hemp, 2004). Some factors that lead to sickness presenteeism include pressure in meeting deadlines, financial demands, lack of staff replacement, and work-related demands (Aronsson & Gustafsson, 2005 as cited in Johansen, Aronsson, & Marklund, 2014).

Studies from Sub-Saharan Africa, such as those conducted in Ethiopia, reveal a high prevalence of sickness presenteeism among healthcare workers and schoolteachers. Contributing factors include financial pressures, inadequate staffing, limited occupational health services, and lack of supervisory support (Mekonnen et al., 2018; Mamaye et al., 2024). Moreover, Evans-Lacko and Knapp (2016) assessed depression-related absenteeism and presenteeism across Brazil, Canada, China, Japan, South Korea, Mexico, South Africa, and the USA, finding the highest GDP impact from presenteeism in South Africa (4.2%) and the lowest in Korea (0.1%), underscoring its impact on the continent. While Ghanaian studies, such as Danquah and Asiamah (2022) and Darkwah (2024), have examined related workplace health issues like the physical work environment and illness-related absenteeism, direct investigations into sickness presenteeism remain scarce.

Several demographic factors have been investigated to find out their relationship with sickness presenteeism, such as gender, age, and employment status (Chun & Hwang, 2018; Juszczyk et al., 2018; Nordenmark et al., 2019). For example, Sendén et al. (2016) examined the effect of gender differences in sickness presenteeism among doctors in Sweden and found that female doctors reported sickness presenteeism more often than male doctors. Past studies have also found that males practice sickness presenteeism more than females (Böckerman & Laukkanen, 2010; Hansen & Andersen, 2009). Furthermore, Yi and Kim (2020) conducted a study in South Korea and found that females, older employees (40 and above), shift workers and middle school graduates reported higher sickness presenteeism. Hansen and Andersen's (2009) findings also revealed that sickness presenteeism is more prevalent in older workers. Böckerman and Laukkanen (2010) also found that Finnish employees who worked in the private sector recorded high sickness presenteeism as compared to those in the public sector.

Furthermore, a study by Palo and Pati (2013) also revealed that low-income earners reported higher sickness presenteeism as compared to high-income earners among Indian workers. The findings of the study also revealed that employees with bachelor's degrees reported higher sickness presenteeism in comparison to employees with master's degrees. In addition, Li et al. (2019) findings revealed that married nurses in China practiced sickness presenteeism more than unmarried ones and age also impacted sickness presenteeism. Finally, Navarro et al. (2018) found that age,

number of years in a job, number of working hours and type of salary (fixed or variable) determined the level of sickness presenteeism experienced by salaried workers in Spain.

So far, research on individual determinants of sickness presenteeism has been heavily focused on Western countries with developed economies and low unemployment rates. The findings from such studies limit its generalizability in that the determinants of sickness presenteeism in such countries may differ relative to poor and developing countries, such as Ghana, where unemployment, underemployment, and vulnerable employment are relatively high (Nwani & Osuji, 2020; The World Bank, 2020; World Bank Group, 2020). Furthermore, there is a paucity of literature relative to the determinants of sickness presenteeism in Ghana. This calls for an examination of the determinants of sickness presenteeism in Ghana to ascertain if the findings in other parts of the world are like those in Ghana. It is in this regard that the present study examines the individual determinants of sickness presenteeism in Ghana, a country characterized by high unemployment and vulnerable employment. The present study therefore examines:

1. The impact of gender on sickness presenteeism in Ghana.
2. The impact of age on sickness presenteeism in Ghana.
3. The impact of educational qualification on sickness presenteeism in Ghana.
4. The impact of income status on sickness presenteeism in Ghana.
5. The impact of employment type on sickness presenteeism in Ghana.
6. The impact of position on sickness presenteeism in Ghana

Theoretical Review

The Health Belief Model (HBM) is one of the most widely used theoretical frameworks for understanding health-related behaviours, particularly in the context of disease prevention and health promotion (Zampetakis & Melas, 2021; Anuar et al., 2020). Originally developed by Rosenstock in the 1950s, the model posits that individuals are more likely to engage in a health-related behavior when they perceive themselves as susceptible to a health issue, believe that the consequences are severe, perceive benefits in taking action, and identify few barriers to that action (Rosenstock, 1974; Rosenstock et al., 1988). Over time, the model has been expanded to include constructs such as self-efficacy and cues to action, making it a robust framework for examining behavioural responses to illness, including sickness presenteeism (Lohaus et al., 2022; Anuar et al., 2020).

In the context of sickness presenteeism, the HBM provides a useful lens for understanding how demographic factors influence workers' decisions to report to work despite illness. For example, perceived susceptibility to worsening health may vary by age and gender—younger workers may feel more resilient, while older employees may be more conscious of health risks (Kinman & Grant, 2020). Perceived severity, or how serious one believes their illness is, may be influenced by educational level, as individuals with higher health literacy may better understand the implications of working while ill (Lohaus & Habermann, 2019).

Perceived benefits and barriers also play a crucial role. For workers in lower income brackets or in precarious employment types, staying home due to illness may be seen as a greater financial or professional

risk, leading them to undervalue the benefits of rest and recovery (Aronsson & Gustafsson, 2005). Additionally, those in higher-ranking positions may feel more indispensable to operations and thus more likely to engage in presenteeism, despite health risks (Karanika-Murray & Biron, 2020).

Moreover, cues to action, such as workplace attendance policies or the presence of occupational health services, can further moderate the effect of demographic variables on presenteeism behaviour. Self-efficacy, or belief in one's ability to take health-protective actions, may be higher among individuals with greater educational attainment or more supportive workplace environments (Miraglia & Johns, 2016).

Overall, the HBM underscores the complex interplay between individual beliefs, sociodemographic characteristics, and workplace contexts in shaping sickness presenteeism.

Method

Research design and sample.

The cross-sectional survey design was used for the study to explore sickness presenteeism in Ghana. This allowed the researchers to capture the impact of gender, age, educational qualification, income, position, and employment on sickness presenteeism at a particular point in time.

The simple random sampling technique was used to select 1272 respondents for the study across the varied business units. The implementation involved stratifying the study population into key sectors, namely telecommunications, health, banking, and aviation, as well as employees from the maritime authority and the broader maritime industry. Within each stratum, individuals were assigned unique identification numbers, and a computerized random number generator was used to randomly select respondents, ensuring each employee had an equal chance of being included to enhance representativeness and reduce selection bias, particularly in a multi-sector study such as this, where proportional inclusion from each group is essential for reliable and generalizable findings (Keeble et al., 2015).

The demographic details of the respondents are in Table 1 below. As shown in Table 1, majority of the participants were males (51.6%), aged between 21-30 years old (38.4%), had a first degree (43.1%), and had been in their business units for 1 to 3 years (32.6%), earned above GHC 3,000 (32.3%), are public sector employees (46.7%), and are non-managers (60.3%).

Table 1: Demographic characteristics of respondents

Variable		Frequency (N)	Percentage (%)
Gender	Male	655	51.6
	Female	614	48.4
Age	Under 21	23	1.8
	21 – 30	484	38.4
	31 – 40	471	37.4
	41 – 50	205	16.3
	51 – 60	62	4.9
	Above 60	14	1.1

Variable		Frequency (N)	Percentage (%)
Education	SSCE/WASSCE	109	8.6
	Diploma/HND	228	18.0
	First Degree	546	43.1
	Masters	261	20.6
	Doctorate	29	2.3
	Professional Certificate	86	6.8
	Other	7	0.6
Number of years in organisation	Less than 1yr	173	13.7
	1 - 3yrs	412	32.6
	4 - 7yrs	324	25.6
	8 - 10yrs	145	11.5
	11 - 13yrs	97	7.7
	14+yrs	114	9.0
Income	Below 500gh	34	2.8
	500-1000gh	244	19.3
	1100-2000gh	340	26.9
	2100-3000gh	236	18.7
	Above 3000gh	408	32.3
Employment Type	Private Sector Employee	547	43.2
		592	46.7
	Public Sector Employee	128	10.1
	Self-employed		
Position	Executive	94	7.6
	Middle Management	394	32.1
	Non-manager	742	60.3

Instrumentation and Procedure

Data for this study was collected using the Sickness Presenteeism Questionnaire (SPQ) developed by Lowe (2002). The SPQ is a 5-item questionnaire scored on a 7-point Likert scale ranging from very accurate (scored as 1) to very inaccurate (scored as 7) with lower scores indicating higher presenteeism and higher scores indicating lower presenteeism. The items on the SPQ are "I meet deadlines even when sick", "I attend meetings when sick", "I work no matter how bad I feel", "I work later if I miss time due to illness" and "I work extra hard to make up for sick days". A description of the study was sent to multiple business units to inform them about the study and seek their approval to participate in the study or allow their employees to participate in the study. Following approval from a business unit to participate or allow its employees to participate in the study, the standardised questionnaire was sent to participants in an envelope. Participants were tasked to sign an informed consent form and proceed to

complete the questionnaire. Participants were asked to return the filled-out questionnaire in a sealed envelope at a drop point in the business unit. Though the study did not require an ethical approval from the University of Ghana Ethics Committee for Humanities, it was conducted in strict accordance of the ethical principles of the Declaration of Helsinki.

Data Analysis

The present data was analysed using the one-way independent sample analysis of variance (ANOVA). A one-way ANOVA was used instead of multiple regression because it is more suitable for comparing mean differences in sickness presenteeism across categorical demographic groups, without requiring a linear relationship (Field, 2013; Gravetter & Wallnau, 2017); however, this approach does not account for potential interactions or combined effects of multiple variables, thereby limiting the ability to explore complex multivariate relationships (Tabachnick & Fidell, 2007).

Results

A test for normality (see Table 2) of the studied variable shows that the variable was normally distributed since skewness and kurtosis values that were within the accepted range of -2 and +2 suggested by Tabachnick and Fidell (1996). Listwise deletion was used to ensure that only complete responses were included in the final analysis to maintain the integrity and reliability of the results while avoiding missing data issues (Allison, 2001).

Table 2: Test for normality

Variable	Mean	SD	Skewness	Kurtosis
SP	4.06	1.41	1.94	2.53

Note: SP = Sickness presenteeism

The results from the one-way ANOVA (Tables 3 and 4) show that there was no significant effect of gender on sickness presenteeism, F (1268) = .601, p >0.01, n_p^2 = .000, there was no significant effect of age on sickness presenteeism F (1259) = .394, p >0.01, n_p^2 = .000, there was also no significant effect of education on sickness presenteeism F (1265) = .991, p >0.01, n_p^2 = .005. Thus, hypotheses 1, 2, 3 were rejected. However, income, employment type and position had significant effects on sickness presenteeism F (1262) =. 2.381, p <0.01, n_p^2 = .005; F (1266) = .5.793, p <0.01, n_p^2 = .009; F (1229) = 10.061, p <0.01, n_p^2 = .016 respectively. Thus, hypotheses 4, 5 and 6 were accepted.

Table 3: Descriptives of One-Way ANOVA

Variable		Mean	Standard Dev
Gender	Male	4.03	1.29
	Female	4.09	1.53
Age		3.85	1.24
	Under 21	4.08	1.58
	21 – 30	4.07	1.23
	31 – 40	4.06	1.39
	41 – 50	3.97	1.34
	51 – 60	4.45	1.72
	Above 60		
Education		4.01	1.36
	SSCE/WASSCE	4.02	1.84
	Diploma/HND	4.14	1.27
	First Degree	4.01	1.31
	Masters	3.67	1.31
	Doctorate	4.09	1.34
	Professional Certificate	3.45	1.48
	Other		
Number of years in organisation		4.12	1.31
	Less than 1yr	4.05	1.56
	1 - 3yrs	3.96	1.31
	4 - 7yrs	4.14	1.40
	8 - 10yrs	4.13	1.25
	11 - 13yrs	4.11	1.36
	14+yrs		
Income	Below 500gh	3.72	1.63
	500-1000gh	3.94	1.38
	1100-2000gh	4.08	1.66
	2100-3000gh	3.97	1.18
	Above 3000gh	4.21	1.30
Employment Type	Private Sector Employee	4.14	1.28
	Public Sector Employee	4.08	1.30
	Self-employed	3.67	2.15
Position	Executive	3.64	1.43
	Middle Management	3.93	1.55
	Non-management	4.21	1.32

Dependent Variable: Sickness Presenteeism

Table 4: Summary of One-Way ANOVA results

	R^2	Adjusted R^2	df	F	p-value	Partial Eta Squared
Gender	.000	.000	1268	.601	.438	.000
Age	.002	.003	1259	.394	.883	.002
Education	.005	.000	1265	.991	.430	.005
Income	.008	.004	1262	2.381	.050	.008
Employment	.009	.008	1266	5.793	.003	.009
Position	.016	.015	1229	10.061	.000	.016

Dependent Variable: Sickness Presenteeism

The analysis of effect sizes using Partial Eta Squared (η^2) in Table 4, reveals that most demographic variables had small or negligible effects on sickness presenteeism. Gender showed no meaningful impact (η^2 = .000), while age (η^2 = .002) and educational qualification (η^2 = .005) explained only minimal variance in presenteeism levels. Income (η^2 = .008) and employment type (η^2 = .009) approached moderate effect sizes, with employment type showing a statistically significant influence (p = .003). Job position exhibited the largest effect (η^2 = .016), indicating a small to moderate influence and suggesting that higher or lower positions within the organizational hierarchy may meaningfully affect presenteeism. According to Cohen (1988) and Richardson (2011), these values generally fall within the small effect size range, underscoring that while some demographic differences are statistically significant, their practical impact remains limited.

Tukey HSD Posthoc comparisons

Posthoc comparisons were conducted for the demographic factors that had a significant impact on sickness presenteeism. However, for income, the test of homogeneity of variances revealed that the difference between the groups was equal therefore, posthoc comparisons were not conducted for income. The Tukey HSD post hoc comparisons (see Table 5) revealed that self-employed respondents reported a significant higher level of sickness presenteeism (M = 3.67, S.D. = 2.15) as compared to respondents who were in the public sector (M = 4.08, S.D. = 1.30) and those in the private sector (M = 4.14, S.D. = 1.28). However, there was no significant difference between private sector employees and public sector employees. The Tukey HSD post hoc comparisons (see Table 6) also revealed that employees at the executive level reported significantly higher sickness presenteeism (M = 3.64, S.D. = 1.43) than employees at the middle management level (M = 3.93, S.D. = 1.55) and non-management level (M = 4.21, S.D. = 1.32). However, there was no significant difference in sickness presenteeism of employees at the executive level and middle-level management employees.

Table 5: Tukey HSD Posthoc comparisons for Employment type on sickness presenteeism

(I) Employment type	(J) Employment type	Mean Difference (I – J)	Std. Error	Sig
Private Sector Employee	Public Sector Employee	.29829	.41769	.755
	Self-Employed	2.34007*	.69151	.002
Public Sector Employee	Private Sector Employee	-.29829	.41769	.755
	Self-employed	2.04178*	.68651	.008
Self-employed	Private sector employee	-2.34007*	.69151	.002
	Public sector employee	-2.04178*	.68651	.008

Table 6: Tukey HSD posthoc comparisons for position on sickness presenteeism

(I) Position	(J) Position	Mean Difference (I – J)	Std. Error	Sig
Executive	Middle Management	-1.42867	.80754	.180
	Non-management	-2.84363*	.77020	.001
Middle Management	Executive	1.42867	.80754	.180
	Non-management	-1.41496*	.43854	.004
Non-management	Executive	2.84363*	.77020	.001
	Middle Management	1.41496*	.43854	.004

Discussion

The study found that the gender of Ghanaian employees did not have a significant effect on sickness presenteeism (Sendén et al., 2016). This is contrary to findings of studies that revealed that females practiced presenteeism more than males and vice versa (Hansen &Andersen, 2009). Also, the study found that there was no effect of the age of Ghanaian workers on sickness presenteeism. This contradicts findings that revealed that age was an important determinant of sickness presenteeism (e.g., Yi & Kim 2020). Furthermore, the study found that the educational qualification of employees did not have an impact on sickness presenteeism of Ghanaian workers. This finding is consistent with Mandiracioglu et al. (2015) findings which indicated that educational qualification of workers in Turkey did not affect sickness presenteeism. Altogether, this study's findings (i.e., age, gender, and educational qualification) reflect the unique socio-economic and cultural dynamics in Ghana, where job insecurity, limited access to healthcare, and informal norms around workplace attendance may homogenize presenteeism behaviors across demographic groups (Lohaus & Habermann, 2019; Johns, 2010). In a context where economic survival often takes precedence over personal health, traditional demographic distinctions such as age and gender may exert less influence on decisions to attend work while ill.

The study also found that the income of employees in Ghana had a significant impact on sickness presenteeism. This finding contradicts that of Mandiracioglu et al. (2015), who revealed that the income of workers in Turkey did not have an impact on sickness presenteeism. Furthermore, the study revealed that the employment type of employees had a significant impact on presenteeism among Ghanaian workers.

Further analysis revealed that the self-employed reported higher levels of presenteeism. This could be attributed to the fact that, since they own the business, a lot of weight is on their shoulders in ensuring the smooth running of their organisations; therefore, they show up to work despite illness to meet their business objectives. This finding contradicts that of Böckerman and Laukkanen (2010), who found that private sector employees practised sickness presenteeism more than those in the public sector. The final finding of this study revealed that the level of management employees operate in has a significant impact on sickness presenteeism. Specifically, employees at the executive level practice more sickness presenteeism than those at the middle-level management and non-management levels. This could be ascribed to the fact that employees at the executive level bear greater responsibility and therefore are reluctant to be absent from work even though they are under the weather, to make sure company affairs are handled appropriately.

Conclusion

The study explored the impact of demographic factors (gender, age, educational qualification, income, employment type, and position) on sickness presenteeism in Ghana. The findings revealed that income, employment type, and position were the demographic factors that significantly affected Ghanaian workers. To effectively reduce sickness presenteeism in Ghana, it is essential to cultivate a workplace culture where employees across all sectors, regardless of employment type, income level, or managerial rank, feel empowered to

prioritize their health without fear of negative repercussions.

Organizations must begin to view employee well-being not as a cost, but as a strategic asset that drives productivity and long-term profitability. Sector-specific strategies are crucial in this regard: for instance, in the health and aviation sectors, ensuring adequate staffing and shift rotations can help minimize pressure on sick employees; telecommunication and banking institutions should incorporate flexible work arrangements and mental health support services; while the maritime industry can prioritize occupational health and safety training tailored to high-risk roles.

Furthermore, national labour and occupational health policies must be strengthened to mandate minimum standards for employee health protection and sick leave practices. Such policies should include clear provisions for workload redistribution during employee absences, enforcement of employee wellness programs, and the institutionalization of psychosocial support. These multi-level interventions will contribute not only to lowering presenteeism but also to enhancing organizational performance and workforce sustainability. Despite the study's strength in surveying a diverse sample of Ghanaian workers, limitations such as reliance on self-reported data which may introduce reporting bias and the cross-sectional design restrict the ability to draw causal conclusions.

Declaration Statement

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Consent for publications. All authors consent to the publication of this manuscript in this journal.

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