

A Mediation Moderation Conceptual Model of Inclusive Leadership, Psychological Contract Fulfilment and Government Support on Total Quality Management–Patient Safety Relationship

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Published online: 25 June 2022.

Abstract

This paper aim to assess the direct effect of total quality management (TQM) on patient safety (PAT), exploring theme diating roles of inclusive leadership (ILD) and psychological contract fulfilment (PCF), and the boundary effect of government support (GOV). The paper develops a conceptual framework along with suppositions by integrating both empirical and theoretical literature in the fields of healthcare strategic management, leadership, industrial and organisational psychology and finance. This paper proposes that TQM will be positively related to PAT, and this positive relationship will be mediated by ILD and PCF. Additionally, government support (GOV) will moderate the direct positive effect of TQM on PAT. This paper provides implications for both researchers and practitioners in the areas of strategic decision-making in health care for enhancing PAT by applying TQM, ILD, PCF and GOV as strategic tools. It also provides implications for up coming researchers to empirically test this conceptual framework in different health care settings.

Keywords: innovation; leadership; government intervention; work and organisational psychology; health care setting; cross-disciplinary approach

INTRODUCTION

In the wake of Covid-19 pandemic, there is increasing interest in improving work methods and processes in the healthcare setting (Alzoubi et al., 2019), which has set the agenda for the adoption of macro level healthcare management strategy (Koomson, 2021a), referred to as total quality management. By adopting total quality management approaches, health care organisations stand the chance of improving patient safety, in the form of reduced medical errors and negligence on the part of healthcare workers (Yeboah, 2017), suggesting a possible positive relationship between total quality management and patient safety. This positive relationship can be facilitated by implementing a collaborative and empathetic form of leadership, termed as inclusive leadership. To explain, the benefits of total quality management on patient safety can be achieved when health care leaders/managers attempt to accomplish change or make a

difference by creating and maintaining positive relationships with employees to persuade them to behave in a service-oriented manner towards patients (Koomson & Opoku Mensah, 2020). Moreover, the proposed positive relationship between total quality management and patient safety can be mediated by fulfilling the expectations of employees on the part of manager/leaders, referred to as psychological contract fulfilment. Simply, fulfilling the expectations of employees will make employees support the agenda of improving work methods and processes to enhance patient safety. Besides, the pay backs of total quality management on patient safety can be realised when government support is massive than when it is little.

Never the less literature addressing the effect of total quality management on patient safety is sparse. Additionally, there is paucity of literature addressing the mediating effects of inclusive leadership and psychological contract fulfilment on the total quality management–patient safety nexus. Closely related existing studies have concentrated on other mediating variables, such as service quality (Abadi et al., 2018), organisational excellence (Akanmu et al., 2020), innovation and market competition (Firman et al., 2020), employees' spirituality (Adawiyah et al., 2020) and strategies for continuous improvement (Jimoh et al., 2019); totally ignoring inclusive leadership and psychological contract fulfilment. In addition, literature addressing the boundary effect of government

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support on the total quality management–patient safety relationship is scanty. Existing researchers, such as Kura et al. (2020), Parket al. (2019), and Yuan and Zhang (2020) have modelled different moderating variables on different direct relationships. From the foregoing, this paper explores the mediating roles of inclusive leadership and psychological contract fulfilment, and moderating role of government support on the direct relationship between total quality management and patient safety.

Research Questions

The purpose of this paper is to explore four research questions:

- *RQ1.* How does total quality management improve patient safety?
- *RQ2.* How does total quality management affect *inclusive* leadership to foster patient safety?
- *RQ3.* How does total quality management affect psychological contract fulfilment to improve patient safety?
- *RQ4.* What is the moderating effect of government support between total quality management and patient safety?

To explore the above-stated research questions, this paper uses conceptual, theoretical and empirical issues to assess how total quality management improves total quality management, how total quality management affect inclusive leadership to foster patient safety, how total quality management affect psychological contract fulfilment to improve patient safety, and the moderating effect of government support between total quality management and patient safety.

Theoretical development

Total quality management and patient safety

Total quality management, in health care setting, is defined as a broad management philosophy that aims to constantly improve the production and delivery of services, following the needs of patients in a less costly, quicker, healthier and easy way, with the participation of all those working under the leadership (Othman et al., 2020). Total quality management is held as an innovative approach to management (Mosadeghrad & Afshari, 2020), thus, scholars, such as Alzoubi et al. (2019) advocate for the introduction and implementation of the concept in hospitals and clinics.

There seem to be a possible positive relationship between total quality management and SAT. This postulation is grounded in the findings of closely-related empirical works of earlier scholars. For instance, Lashgari et al. (2015) found that the level of patient satisfaction increased from 55.4% to 71.3% after the application of total quality management approach in an emergency ward of a military hospital in Iran. Abadi et al. (2018) augmented that total quality management positively contributed to patient satisfaction among 398 patients in Indonesia. Abdallah and Mohamed (2018) showed a strong positive correlation between healthcare providers' awareness of total quality management and patient satisfaction in Benha Family Centres in Egypt. Nguyen and Nagase (2020) also found support for a positive relationship between total quality management and satisfaction among inpatients undergoing treatment at a tertiary-level hospital in Vietnam. Thus, total quality management can be said to be a cornerstone of continuous improvement based on

learning from errors and adverse events to foster patient safety.

Patient safety is a healthcare discipline that emerged with the evolving complexity in health care systems and the resulting rise of patient harm in health care facilities. It is reflected in the prevention and reduction of risks, errors and harm that occur to patients during provision of healthcare (World Health Organisation, 2022). A patient who realises that his/her safety is assured is more likely to be loyal to the healthcare organisation, adhere to the doctor's advice on treatment, shorten the healing period, and improve health in general and quality of life (Baker & El-saidy 2020), thereby providing benefits to the hospital regarding good name (Opoku Mensah & Koomson, 2021), repeat patronage (Yeh et al., 2018), switching barriers, and patient loyalty (Bergel & Brock, 2018).

The proposed positive relationship between total quality management and patient safety is grounded in the resource-based theory of the firm (Barney, 1991), which regards a good total quality management strategy as a resource or capability that enables healthcare organisations to achieve patient safety. To explain further, if total quality management programmes or activities employed by a healthcare organisation are able to address the needs of patients, it becomes a source of competitive advantage which enables the said healthcare organisation to foster patient safety, as compared to rival firms who pay lip service to the implementation of quality improvement approaches (Kura et al., 2020). Therefore, patient safety is an important assessment tool for determining whether a quality management system adopted is capable of meeting patient values, expectations and requirements (Shahid & Anguita, 2020). In the light of this discussion, this paper proposes that total quality management has a direct positive relationship with patient safety.

P1. Total quality management is positively related to patient safety.

Mediating roles of inclusive leadership and psychological contract fulfilment between total quality management and patient safety

This paper argues that, the direct relationship between total quality management and patient safety can be facilitated by implementing a relationship-based approach to leadership. In other words, the benefits of total quality management on patient safety can be achieved when healthcare leaders/managers attempt to accomplish change or make a difference by creating positive relationships to motivate employees to behave in a service-oriented and patient-centred manner (Koomson & Opoku Mensah, 2020). This collaborative and empathetic form of leadership is called inclusive leadership. Inclusive leaders/managers use empathy skills to empower their teams to build strength in their current skills and develop new skills. They treat each and every member of their team with equal respect and fairness by understanding them before making decisions for them.

The facilitating role of inclusive leadership in the direct relationship between total quality management and patient safety is underpinned by the affective events theory (Weiss & Cropanzano, 1996). This theory considers total quality management activities as strategic management events at the workplace, which require healthcare leaders/managers to adopt a relationship-based approach to leadership. The adoption of a relationship-based approach to leadership often evokes positive emotional reactions among healthcare professionals and,

this, in turn, motivates and drives them to improve patient safety for the benefit of the healthcare organisation. The affective events theory (Weiss & Cropanzano, 1996) is also useful in clarifying the mediating effect of psychological contract fulfilment on the direct relationship between total quality management and patient safety.

According to this theory, total quality management activities are strategic management events which address or fulfil the expectations of employees. The fulfilment of healthcare employees' expectation sevoke positive emotional reactions and, this, in turn, motivates and drives them to improve patient safety for the benefit of patients and the healthcare organisation at large. psychological contract fulfilment represents the degree to which an organisation meets its expected obligations to an employee, from the employee's vantage, and it serves to build upon the social exchange element, resulting in positive employee behaviours (Karagonlar et al., 2016), such as improving patient safety. Simply, employees will behave favourably within firms, when they perceive the firm as having their best interests at heart, offering them safe working environment, focused training, career development plans and new learning opportunities (Koomson, 2021b). To ensure successful implementation of patient safety strategies, total quality management, inclusive leadership and psychological contract fulfilment are all needed in every process of the healthcare organisation's activities. Without these three activities, the desire to ensure and improve patient safety will be difficult to accomplish. Thus, this paper expect inclusive leadership and psychological contract fulfilment to facilitate the positive effect of total quality management on patient safety.

P2. Inclusive leadership will positively mediate the relationship between total quality management and patient safety.

P3. Psychological contract fulfilment will positively mediate the relationship between total quality management and patient safety.

Moderating role of government support between total quality management and patient safety

Government support may also moderate the direct positive effect of total quality management on patient safety, such that massive government support among healthcare organisations can enhance the direct positive relationship between total quality management on patient safety. On the contrary, little government support among healthcare organisations can impede the direct positive relationship between total quality management on patient safety. Government support means financial support provided by federal, provincial or municipal governments, including without limitation capital and operating grants, subsidies, repayable or forgivable loans, reimbursement tax credits, and loan guarantees. The proposed moderating effect of government support on total quality management–patient safety nexus is explained by the general contingency theory (Luthans & Stewart, 1977). This theory considers government support as a potential moderator of the total quality management–patient safety relationship, such that when government support is massive, the relationship between total quality management and patient safety becomes stronger (more positive). On the other hand, when government support is little, the relationship between total quality management and patient safety is weakened. In other words, the general

contingency theory is of the views that, a healthcare organisation's ability to adopt continuous improvement approaches to improve patient safety depends on the interplay between its conducts (total quality management), and that of government (government support) (Miller, 1981). Therefore, to become more efficient and effective in improving patient safety, healthcare organisations should be able to create a fit between total quality management strategies and external factors (Dranzin & Van de ven, 1985), like government support.

The argument for the moderating role of government support between total quality management and patient safety is also supported by the results of earlier researchers who have found support for the moderating effect of the same or similar variable on different direct paths. For example, Li et al. (2017) disclosed that stringent government regulation significantly strengthened the positive influence of corporate environmental responsibility on corporate financial performance among Chinese energy-intensive listed companies. Kim et al. (2018) reported that, government support significantly enhanced the effects of perceived value on adoption intention among drivers in Korea. Zhao et al. (2019) found that environmental regulation in China served as a moderator in knowledge spillover–green economy relationship. Yuan and Zhang (2020) augmented that regulatory enforcement positively moderated the relationship between flexible environmental policy and technological innovation using from China's industrial panel data. Deriving from these views, this paper postulates that government support will positively moderate the total quality management–patient safety relationship.

P4. Government support will positively moderate the relationship between total quality management and patient safety.

Conceptual framework

The conceptual framework originating from the above discussion is demonstrated in Figure 1. The postulations are symbolised as *P1*, *P2*, *P3* and *P4*. The postulations explaining the positive effect of total quality management on patient safety (*P1*), as well as the mediating effects of inclusive leadership (*P2*) and psychological contract fulfilment (*P3*) between total quality management and patient safety are symbolised by solid lines, while the dotted line symbolises the positive moderating effect of government support (*P4*) on the direct relationship between total quality management and patient safety. Here, (*P1*) explains how total quality management improves patient safety. Likewise, (*P2*) explains how total quality management affects inclusive leadership to foster patient safety. Similarly, (*P3*) explains how total quality management affects psychological contract fulfilment to improve patient safety. The remaining postulation (*P4*) clarifies the boundary condition (government support) under which total quality management and patient safety can be strengthened or weakened.

DISCUSSION

This paper contributes in diverse ways. In the first place, it integrates and lengthens the literature on three independent fields of study: total quality management, inclusive leadership, psychological contract fulfilment and

government support; the first being a strategic management tool (Othman et al., 2020), the second being a leadership tool, the third being a work and organisational psychology tool, and the fourth being a finance tool. Therefore, this present study transcends a single discipline, making it cross-disciplinary. Secondly, to the best of my knowledge, it is the only study that addresses the indirect effects of inclusive leadership and psychological contract fulfilment on the direct relationship between total quality

management and patient safety, dwelling on these source-based theory (Barney, 1991) and affective events theory (Weiss & Cropanzano, 1996) as the theoretical foundation. Thirdly, as much as I am aware, this study is unique because it expounds the boundary condition under which total quality management and patient safety can be enhanced, with resource-based theory (Barney, 1991) and general contingency theory (Luthans & Stewart, 1977) as theoretical underpinnings.

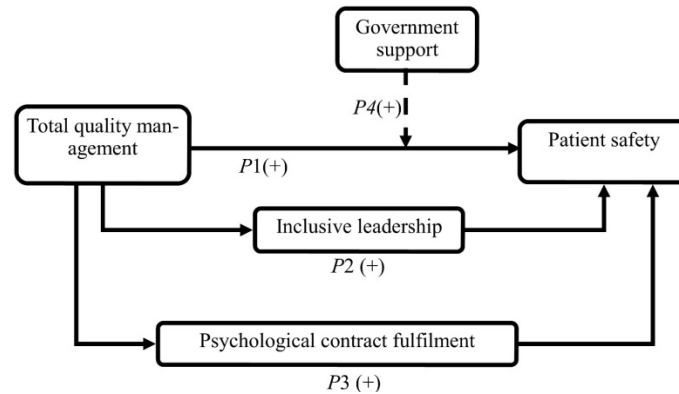


Figure 1. Conceptual model

Upcoming researchers may empirically test this conceptual framework and postulations in different healthcare settings. Specifically, they may empirically test how inclusive leadership and psychological contract fulfilment will independently mediate between total quality management and patient safety, since earlier researchers have found empirical support for the mediating role of other variables, namely service quality (Abadi et al., 2018), organisational excellence (Akanmu et al., 2020), innovation and market competition (Firman et al., 2020), employees' spirituality (Adawiyah et al., 2020) and strategies for continuous improvement (Jimoh et al., 2019) on a similar direct path. Additionally, future researchers may empirically test the boundary condition(s) under which the total quality management–patient safety relationship can be strengthened or weakened, following the findings of closely-related existing studies (Kim et al., 2018; Li et al., 2017; Yuan & Zhang, 2020; Zhao et al., 2019).

CONCLUSIONS

This paper made the attempt to explore the direct relationship between total quality management and patient safety. Again, it addresses the effect of total quality management on inclusive leadership and its subsequent impact on patient safety. In addition, it explores the effect of total quality management on psychological contract fulfilment and its resulting effect on patient safety. It further explores the boundary condition under which total quality management and patient safety can be enhanced or weakened by proposing a conceptual model with testable postulations. This paper highlights the role of total quality management as a strategic management tool, inclusive leadership as a leadership tool, and psychological contract fulfilment as a work and organisational psychology tool for ensuring and improving the safety of patients. In addition, this paper informs healthcare organisations on the need to create a fit between total quality management strategies

and government support, which has enormous benefits for patients, co-workers and healthcare organisations at large, especially in this era of Covid-19. Along with implications for both practitioners and researchers, the paper also recommended directions for further research to enrich the fields.

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