A last resort? A scoping review of patient and healthcare worker attitudes toward strike action

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Abstract
While strike action has been common since the industrial revolution, it often invokes a passionate and polarising response, from the strikers themselves, from employers, governments and the general public. Support or lack thereof from health workers and the general public is an important consideration in the justification of strike action. This systematic review sought to examine the impact of strike action on patient and clinician attitudes, specifically to explore (1) patient and health worker support for strike action and (2) the predictors for supporting strike action and the reasons given for engaging in strike action. A systematic scoping review was employed to identify all relevant literature, followed by a textual narrative synthesis. A total of 34 studies met inclusion criteria. Support for strike action was largely context-dependent. A range of factors impact support for strike action; broader cultural and structural factors, such as unionisation and general acceptance of strike action; systemic factors, such as the nature of the healthcare system, including infrastructure and work conditions; the strike itself and a range of individual factors, the most notable of which was being a student or in an early career stage. There were also some surprising results, for example, during doctors strike, nurses were provided with the opportunity to expand their role, which led to greater professional autonomy and job satisfaction.

KEYWORDS
health personnel, job satisfaction, patient satisfaction, strike

1 | INTRODUCTION

Protest by health workers is a common phenomenon, but it has only been recently that we have been able to quantify this. In the year before the COVID-19 pandemic (2019–2020), it was estimated that there were 2416 protests globally that involved healthcare workers. These numbers increased substantially during the pandemic when between 2020 and 2021, at least 3913 protests were recorded (Brophy et al., 2022). Among these thousands of actions, one of the most common has been strike action, that is, action where health workers temporarily withdraw their labour to raise some type of grievance (Essex & Weldon, 2021a). While there has been relatively little written about protest actions when it comes to healthcare workers (Essex, 2021), this is not the case when it comes to strike
action. Strike action more generally prompts fierce debate, however, there is something particularly emotive about health worker strikes. Discussions often centre on the immediate impacts of strike action, namely the potential impact that it will have on patients, but looking more closely, the picture is far more complex. Strike action also raises important questions about the systems and structures in which healthcare is delivered and perhaps most fundamentally about what we owe each other when it comes to health (Essex & Weldon, 2021b). Strikes also vary substantially, who goes on strike, the services impacted and the length of the strike, for example. Strikes have also varied in the support they have received from the general public and health workers. Perhaps one of the most illustrative examples of this comes from the Ontario doctors strike. In 1986, doctors in Ontario, Canada, walked out to protest an imminent ban on extra-billing. This decision had a significant ‘moral cost’ (Meslin, 1987). Unable to sway the government and the public that their demands were justified, this strike did nothing but to damage trust in the profession in what was called a public relations disaster (Butt & Duffin, 2018).

The support a strike receives, from health workers and the general public, is an important consideration when we think about the justification of strike action. That is, attitudes toward strike action can influence its impact on strikers and the trajectory of the strike, dictating how long a strike is pursued and whether its demands are met. While debates about the justification about strike action are ongoing, there has been a body of evidence slowly building over the last several decades related to the impact that strike action has on patient outcomes, healthcare delivery and the attitudes of patients and healthcare workers themselves. It is this latter area with which this review is concerned.

2 | AIMS

This review seeks to analyse the empirical literature that explores the attitudes of patients and health workers towards strike action in healthcare, and more specifically to explore (1) patient and health worker support for strike action and (2) the predictors for supporting strike action and the reasons given for engaging in strike action. This review will also explore (3) the overall quality of the studies on this topic.

3 | METHODS

3.1 | Design

To examine the above questions, we employed a systematic scoping review. This review follows the steps outlined by Peters et al. (2020) namely that (1) a systematic literature search was carried out, (2) papers were assessed for their eligibility, (3) data were extracted and (4) synthesised. In addition to these steps, quality appraisal was also carried out to assist in gauging the quality of the papers included in this review. Additionally, this review is consistent with the PRISMA extension for scoping reviews (PRISMA-ScR) and enhancing transparency in reporting the synthesis of qualitative research (ENTREQ) guidelines (Tong et al., 2012; Tricco et al., 2018).

3.2 | Search strategy

This search strategy has been published and applied elsewhere (Essex, Weldon, et al., 2022) The following databases were searched: EMBASE (1980–2021), MEDLINE (1946–2021), CINAHL (1982–2001), BIOETHICSLINE (1972–1999), EconLit (1969–2021), WEB OF SCIENCE (1960–2021). In addition, grey literature was searched through OPEN GREY and SIGMA REPOSITORY. The final search terms were strike OR ‘industrial action’ OR ‘industrial dispute’ OR ‘collective action’ AND doctor OR physician OR clinician OR ‘medical practitioner’ OR nurses’ OR ‘health profession’ OR healthcare OR ‘health care’ OR ‘pharmacist’ OR ‘dentist’ OR ‘midwife’ OR dietitian OR ‘occupational therapist’ OR ‘paramedic’ OR ‘physiotherapist’ OR ‘radiographer’ OR ‘psychologist’ OR ‘health worker’ OR ‘hospital’. No date or language restrictions were applied to the search. This search was supplemented with a manual search of reference lists of included studies.

3.3 | Search inclusion/exclusion criteria

A search was carried out on 17 December 2021, returning 5728 results. These were subsequently imported into Endnote, where duplicates were removed. The title and abstract of the remaining 4415 articles were screened, which left 392 articles. After searching reference lists, a further four articles were found, leaving 396 articles. A full-text screen was then carried out, which left 34 articles. There were no date restrictions place on articles, which were screened against the below inclusion/exclusion criteria (Supporting information 3).

Papers were included if:

- They had extractable data related to patient, public or healthcare worker opinion (including students) attitudes towards strike action in healthcare
- They were peer-reviewed and available in English

Papers were excluded if:

- They examined healthcare delivery in the absence of patient or healthcare worker opinion (e.g., hospital admissions, length of stay in hospital) or patient outcomes (i.e., patient mortality)
- They examined job satisfaction more generally or attitudes towards activism more generally
- They were conference abstracts

3.4 | Data extraction

As this was a scoping review, and because of methodological differences in the papers included data extraction categories were...
kept broad, focused on the nature of the study, its aim and outcomes, along with the nature of the strike in question, that is, the length of the strike, the professions that went on strike and any other key features of the action (Supporting Information 1). Data were extracted by R. E. and S. M. W.

3.5 | Quality appraisal

To assess the overall quality of the papers included in this review four researchers (C. B., T. E., G. H., A. P.) independently assessed 34 full-text articles using the Mixed Methods Appraisal Tool (MMAT), Version 2018 (Hong et al., 2018). The MMAT provides separate rating scales based on study methodology, papers were therefore assessed along methodological lines and the criteria for the corresponding scale. Each scale includes five questions, a breakdown of each criterion can found in Hong et al. (2018).

3.6 | Data summary and synthesis

To analyse our findings, we utilised a textual narrative synthesis (Lucas et al., 2007). This approach arranges studies, which may otherwise be disparate in terms of design, into homogenous groups, generally arranged around the research questions of interest.

4 | RESULTS

Results revealed a range of papers spanning almost four decades and from across the globe. Below we have arranged our analysis to reflect the above research aims, namely (1) patient and healthcare worker support for strike action, (2) the predictors for supporting strike action or the reasons given for engaging in strike action and (3) the quality of included papers.

4.1 | Patient attitudes toward strike action

Studies that examined patient attitudes towards strike action were heterogenous, examining patient and patient relative support for the strike and factors that influenced this, reasons for strike action by health workers and the perceived need for care during strike action. There were six studies that examined patient attitudes, representing a sample of 3300 patients (Barnoon et al., 1987; Binkowska-Bury et al., 2013; Carmel et al., 1990; Dzendrowskyj et al., 2004; Hogben & Shulman, 1976; Waithaka et al., 2020).

A number of studies explored support for strike action and the perceived impact this had on the delivery of care. In the only study to quantify levels of support among 32 patients, Hogben and Shulman (1976) suggested that over half of these participants expressed empathy towards staff engaged in an 80-day strike; which involved over half of the staff in a large US hospital. Similarly, perceptions about the perceived impact that the strike had on care were split; 44% of participants indicated that the care was not as good during the strike compared to a nonstrike period. A number of other studies give further insight on this point. A study from New Zealand which examined the impact of a 2-day strike on relatives of intensive care patients suggested that relatives who were impacted by the strike were significantly more angry and less trusting compared to those who were unaffected. Furthermore, those most heavily impacted expressed more negative attitudes toward the healthcare system overall. Those who had relatives involved in transfers to other hospitals were also more ‘distressed, angry, and less trusting’ (p. 1) than those who did not have relatives transferred (Dzendrowskyj et al., 2004).

Similar results were found in a study from Kenya, that interviewed participants soon after a 100-day doctor and 150-day nurse strike. Several participants felt that ongoing strikes may have longer term consequences, notably that the strikes may impact treatment seeking and trust in the health system more generally. However, participants also noted that the government also had a responsibility here (which was similar to what was found by Binkowska-Bury et al., 2013; see below). A number of participants expressed distrust, noting this was not an issue prioritised by the government because they felt that those in positions of power could afford private care. This study went on to examine perceptions of why these strikes occurred, noting poor pay and ‘working conditions, including shortages of drugs, commodities, equipment and staff’, along with a series of policy changes (Waithaka et al., 2020). In a Polish study, Binkowska-Bury et al. (2013) also asked patients about their perceptions of strike action. Similar to the above study, many patients (74%) saw either the government or hospital management responsible for strikes, rather than the nurses themselves. Most perceived that strikes were carried out because of low wages, employers failure to maintain employment standards and the status of the nursing profession.

The Israel doctors strike of 1983 prompted a number of studies; these studies generally explored the perceived impact that the strike had on health and the perceived need for care during the strike. The Israel doctors strike lasted for 118 days in 1983 and involved all doctors employed by the government. Ad-hoc health centres were established across the country to provide care for a small fee. Barnoon et al. (1987) explored the perceptions of 720 patients who visited a clinic during the strike. Results indicated that 50% of the respondents reported an urgent need for medical care for themselves or for members of their families during the period of the strike, and only 12% reported no such need. This study reported that the majority of participants indicated they felt the strike had some impact on their health, with those who were from socioeconomically disadvantaged, backgrounds more likely to perceive damage to their health. Similar results were found by Pilpel et al. (1985) who surveyed 1663 members of the public. Almost 40% felt they had a need for care at least once during the month before the interview. Of those who felt they had a need for care, 46% sought care on each occasion, 6% on some occasions, while 49% did not seek any treatment. Socioeconomic status was an important factor in predicting whether
treatment was sought with financial restraints cited most frequently as the reason for not seeking treatment. These findings were further supported by Carmel et al. (1990), who reported that among 719 patients, it was those who had lower levels of education that perceived the strike had a greater impact on their health.

4.2 | Health workers attitudes toward strike action

The majority of the studies included in this review explored the perceptions of health workers toward strike action. The 30 studies represented almost every continent, with the most studies conducted in the United States (n = 10) and Israel (n = 6). There were 9304 healthcare workers represented in these studies. The mean strike length was 61 days, with the median length 21 days. Thirteen studies included a sample of nurses, nine included doctors, while the remainder included interdisciplinary or student samples. Generally, these papers explored support for a strike, including the reasons for its justification, the predictors for supporting strike action or the perceptions related to the impact that the strike had on healthcare delivery and patient outcomes.

One study that stands alone in this respect was a concept analysis, drawing on interviews with nine nurses, nurse managers and union representatives (Catlin, 2020). This study concluded that strikes in the United States could be described as ‘a last resort effort, after significant bargaining on the issue between nurses and management has not allowed for agreement, where a work stoppage occurs and nurses leave the bedside’. Furthermore, this study suggests that while all participants recognised the significance of strike action in achieving important gains in salary and working conditions for nurses, many also raised concerns about duty to patients and the justification for such action. The remainder of these studies will be discussed below.

4.2.1 | Support and justification for strike action

A number of studies again examined strike action within Israel. Gafni-Lachter et al. (2017), for example, reported on nurses attitudes to two doctors strikes, with two surveys administered in 2000 and 2011. Each of these coincided with strike action. The strike in 2000 lasted 217 days. The 2011 strike lasted 4.5 months with a number of services continuing to deliver care. Generally, support for each of the strikes was high, with 86.5% and 94% of participants indicating support for the 2000 and 2011 strikes, respectively. More generally, 86% and 91% of participants indicated more general support of strikes in 2000 and 2011, respectively. Beyond generally high support for strike action, this study suggested ‘that in 2011 more nurses identified striking as a legitimate mechanism, would strike under the same circumstances, and felt that collaboration with physicians persisted despite the strike’ (p. 205). Furthermore, there was also an increase in the number of nurses that felt that the impact on patients was either somewhat or entirely justified. Among 144 Israeli medical students in a survey conducted in response to a 120-day strike in Israel, 97% supported the strike, while 43% said that the impact a strike may have on patients was ‘totally or near totally justified’ (p. 411), furthermore 42% said that striking doctors were more role models as a result of the strike (Lachter et al., 2007).

Similarly, high support for strike action was found in a study which involved 771 Croatian medical students (Hadzibegovic et al., 2004). In response to a 30-day doctors strike in Croatia, 77% of students either agreed or strongly agreed that doctors should be allowed to strike and felt that strikes could be justified for a range of reasons, even if for higher salaries. When looking at such justifications, however, results were more mixed; fewer students supported such action if it reduced the quality of care or put patients in danger.

Three studies in the United States also reported relatively high support for strike action. In response to a 4-day strike, 83% of 305 nurses reported that they approved of the action. Despite this support, however, 39% of did not participate and 38% continued to work at least some of the time during the strike (Kravitz et al., 1992). Similarly, in relation to a doctors strike that same year, 69% of 257 doctors indicated they approved of a 4-day strike, while 50% participated in the strike itself (Kravitz et al., 1990). In a study which examined attitudes towards strike action more generally among junior doctors, participants were asked to respond to 12 hypothetical scenarios. Support ranged from 85% in cases where a strike was protesting a lack of vital equipment and the risks to patients were negligible to 4% if a strike was called because of low pay or poor working conditions. A small number (9%) of participants felt that strike action was unacceptable in all circumstances (Kravitz & Linn, 1992). Support for strike action also appeared to vary by seniority. For example, Li et al. (2011) found that while 88% of students supported strike action while only 43% of consultants did. Furthermore, while the majority of participants (both doctors and students) agreed that ‘patient well-being takes precedence over all other professional issues’, students felt less obligated to care for patients while others were on strike.

One of the major conclusions from the above studies is that the context of strike action matters (more on this below), including the demands it makes, the risks that were associated with the action and the individuals involved in the strike. Elsewhere studies presented more mixed support for strike action. During an 8-day US strike which involved over 50% of staff in a large hospital, Hogben and Shulman (1976) explored attitudes among 61 staff members. Their results suggest that sympathy toward the strike was about equally divided between staff with half expressing sympathy for the strike and the strikers while others expressed sympathy with the hospital management. In a study that asked 1146 medical school students and alumni about strike action, 63% of participants indicated they were in favour of physician organising, 55% indicated that physicians should be allowed to strike, while 46% said they would participate in a strike depending on the grievance raised by the action. Medical students were also surveyed, with results suggesting a dramatic increase in those who favoured strike action from matriculation to graduation (Wassertheil-Smoller et al., 1979).
Three studies from Africa explored more general support for strike action. Two studies from South Africa both explored support for strike action in light of multiple nursing strikes occurring throughout the 1990s. Kunene and Nzimande (1996) surveyed 155 nurses and 109 nurse managers. Forty-nine percent of enrolled nurses supported the right to strike, whereas 24% of registered nurses supported the right to strike. Muller (2001) reported similarly low support for strike action, with only 32.5% of participants indicating they supported such action. One further study from Nigeria was conducted in light of multiple strikes in the 3 years preceding the study. Less than half (43.6%) of the 150 healthcare workers sampled (approximately 60% of whom were doctors, nurses and pharmacists) supported strike action (Oleribe et al., 2016).

Four studies stand in contrast to those above (Binkowska-Bury et al., 2013; Brown et al., 2006; Hibberd & Norris, 1991; Linn, 1987). The first was the only study to examine the impact of strike action on nurses who were dealing with the fallout of strike action. During a 19-day hospital strike in Canada, Hibberd and Norris (1991) interviewed 32 nurses who were dealing with increased workload because of strike action elsewhere. The results suggest that participants had a number of conflicting beliefs about turning to strike action. Several nurses declared that regardless of the circumstances, they would not strike and were prepared to cross the picket lines if necessary. Others agreed with the goals of the strike, however, disagreed with the tactics employed. Many also suggested that it was the government who had ‘cornered’ nurses into taking strike action, however, and overall nurses expressed little inclination to take strike action. Only one study that examined support and justification for strike action applied longitudinal design, following eight nurses throughout a 9-day Irish nurse strike (Brown et al., 2006). Results suggest that the nurses progressed through four stages as the strike went on. First as an inevitable protest, the next ‘where a sense of ownership and historical solidarity’ (p. 206) was expressed. The authors next suggested that cracks in solidarity then became apparent, when the realities of the strike hit home. Finally, nurses reported disillusionment in relation to negotiations. Throughout these results, there is a tension that underpins the experiences of nurses, with conflicting self-identities as both nurses and as strikers. Finally, rather than examining the reasons or support for strike action, Linn (1987) utilised Kohlberg’s moral theory to examine participants justification for strike action, hypothesising that ‘there would be greater likelihood that real life moral justifications would correspond to the individual’s hypothetical moral stage’ (pp. 445–446). The results of this study suggested that when justifying hypothetical behavioural choices participants ‘emphasised their commitment to an obligation, such as the one they had assumed when they decided to become doctors’ (p. 446).

In contrast to this, when speaking about the strike in question, participants reasoning centred on their ‘desire to win social approval and to avoid disapproval’ (p. 449). Finally, Binkowska-Bury et al. (2013) did not ask directly about strikes, but among nurses in this study, 53% indicated they believed that protests might improve conditions for nurses in the country, while the remainder of the sample either did not have an opinion or felt that such action would be futile.

While the majority of studies did not explicitly explore justifications for strike action among participants, instead focusing on the overlapping questions related to the predictors of strike action (see below), it should be noted that a number did mention or imply that patient care was a particularly salient concern in determining whether strike action was justified (e.g., Forfa, 1987; Kunene & Nzimande, 1996; Li et al., 2011).

### 4.2.2 | Predictors for supporting strike action and why health workers strike

A number of studies examined the predictors for strike action or reasons behind a strike (Akinyemi & Atilola, 2013; Binkowska-Bury et al., 2013; Butt & Duffin, 2018; Janus et al., 2007; Kohn & Wintrob, 1991; Kowalchuk, 2018; Kravitz et al., 1989, 1990, 1992; Kunene & Nzimande, 1996; Li et al., 2011; Oleribe et al., 2016, 2018; Wassertheil-Smoller et al., 1979; Weil et al., 2013). Generally, these studies examined individual factors, such as level of training or specialisation and systemic or structural factors, such as remuneration or working conditions.

One of only two longitudinal studies included in this review examined more general attitudes toward a strike in US medical school students and alumni (Wassertheil-Smoller et al., 1979). Support for strike action increased over time (year of graduation, from 1959 to 1975). Factors related to increased support for strike action included being in private practice, not having an affiliation with a teaching hospital, not having a full-time teaching appointment, not being board certified and spending more than 60% of time in direct patient care. Medical students were also surveyed; results suggest a dramatic increase in those who favour strike action from matriculation to graduation. Upon entering medical school, only 20% thought physicians should be allowed to strike, this increased to 60% at graduation (Wassertheil-Smoller et al., 1979). These results are supported elsewhere, with other studies that suggest that level of seniority and/or training played a role in the support of a strike. Li et al. (2011), for example, found that 88% of students compared to 43% of consultants supported a threatened strike in the United States. Similarly, Kravitz et al. (1990) also noted that support for strike action was more likely for doctors who were earlier in their career, assigned to an outpatient service, who held a more favourable view of activism more generally or who perceived greater support for the strike from colleagues and the public. This study also found that specialisation may also play a role in predicting support for strike action, with those who had training in internal medicine or psychiatry more likely to support such action. In a further study, it was also found that training in obstetrics-gynaecology or psychiatry and liberal politics were independent predictors of participants support for strike action. Finally and perhaps unsurprisingly, union membership was also found to be a predictor for support of strike action (Kravitz et al., 1992). One study did not directly examine predictors of support for a strike, however, gave a proxy, behaviour during a strike. During 21 days US mental health worker strike, this study noted that junior
doctor attitudes were different to psychiatrists’, with ‘20% of the residents volunteer[ing] service during the strike compared with 66% of the [psychiatrists]’ (Kohn & Wintrob, 1991, p. 87). This, of course, could be interpreted both ways, that volunteering or refraining to volunteer could be interpreted as tacit support for the strike, however, the authors did not elaborate on this point.

As can be seen from the above studies, in addition to individual factors, a number of factors related to systemic or structural issues were explored. A number of studies identified issues related to pay, employment conditions and job satisfaction as being important predictors in support for strike action. Kunene and Nzimande (1996) suggested that while a number of causes were identified, the major issues raised by participants related to poor pay and working conditions as the major drivers of strike action. Similarly, Kravit and Linn (1992) also found that low levels of workplace satisfaction predicted whether participants supported strike action, while Mabange and Muller (2000) also attributed support for strike action to dissatisfaction with pay, employment conditions and ‘unfulfilled promises’. Binkowska-Bury et al. (2013) suggested that among a sample of Polish nurses, government neglect and recent reforms were the most salient reasons as to why strike action was needed.

Beyond these studies, and perhaps the somewhat unsurprising observation that job satisfaction was related to support for strike action, the number of studies expanded on this point, giving greater insight into the factors that may influence job satisfaction. Akinneyi and Atilola (2013) found that among 163 junior doctors in Nigeria, only 55% expressed satisfaction in their roles. Predictors for this included being younger, having fewer advancement opportunities, having less autonomy in their roles and having poorer working conditions. Janus et al. (2007) also found that nonmonetary factors were important predictors of job satisfaction among a sample of doctors. In many cases, conditions related to the workplace were more important than monetary factors. This study identified seven factors including ‘decision-making and recognition, continuous education and job security, administrative tasks, collegial relationships, specialized technology and patient contact’ (p. 358) that were all significant predictors of job satisfaction.

Similarly, Kravit et al. (1992) also suggested that nurses had a range of concerns beyond salary including workload, patient well-being and quality of care. Oleribe et al. (2016) found that poor leadership and management, poor wages and working conditions were all important predictors for health workers in Nigeria in relation to strike action. In a follow-up study, Oleribe et al. (2018) outlined a range of additional factors that predicted support for strike action, including concerns about the welfare of staff, poor infrastructure, poor guidelines and interpersonal conflict. When asked what could be done to address strike action, participants suggested the government enter into agreements with health workers about pay and conditions, that front-line workers be involved in the management and other decision-making and that poor training and infrastructure is addressed. Finally, Weil et al. (2013) utilised the World Health Organisation’s six health system building blocks as a framework to examine the 2011 doctors strike in Israel. The results of this study suggest that despite the more immediate concerns of the strike, related to pay and conditions, the issues that drove this action were far more complex and that the demands made in this strike could be linked to a number of health system building blocks. The authors concluded that the most significant issues related to this strike included ‘a disgruntled health workforce... a lack of leadership by the government in understanding and responding to physicians’ concerns; and a purported information insufficiency’ (p. 33).

While we can begin to find a number of common themes in the above studies, again, the context of the strike action was important. Kravit et al. (1989) examined predictors of participation in the Ontario doctors strike in 1986. The results of this study stand in contrast to many of those above. Participants were more likely to support strike action if they had higher incomes, were surgeons or gynaecologists, were politically conservative and perceived colleagues and the general public to be in favour of the strike. These results are readily explained at the Ontario doctors strike is also fairly distinct in a number of ways, namely that it was undertaken by those already on substantial salaries who sought to retain the right to charge patients additional fees. The strike received little public support, was short-lived and was described as having a substantial ‘moral cost’ for those involved and doctors in Canada as a whole (Butt & Duffin, 2018).

A final study that stands alone in this respect came from Nicaragua and El Salvador. This study examined labour militancy more generally among nurses and student nurses between the countries and sought to explain the relatively low levels of ‘labour militancy’ in each country. In comparison to many of the other studies above, this study identified a range of historical and social factors that influenced labour militancy. Results suggest that while nurses in both countries faced similar barriers to labour organising seen elsewhere in the world, they were also exposed to a number of factors which discouraged open conflict. The authors content that ‘[c]hief among these was the influence of religion in nurses’ schooling and socialization, and nurses’ lack of experience with unions specific to their occupation. The latter [was attributed] to particular historical and political factors in each country’ (Kowalchuk, 2018, p. 5).

### 4.3 Quality of studies

The studies included in the review were rated against qualitative, mixed-methods and quantitative-descriptive criteria included in the MMAT. Overall the quality of the studies was good, but variable, with a number of studies meeting all quality criteria on the MMAT, while others met none. Qualitative studies had the highest quality, with the majority of studies scoring 5/5 and only one that failed to meet any criteria. The one mixed methods study included was generally high quality and met all MMAT criteria (Dzendrowskyj et al., 2004). When it came to quantitative studies, most were high quality, with all bar three scoring >3/5. Only one study did not meet any of the criteria. The major issues identified in relation to the quantitative studies related to recruiting a representative sample and having a high risk of
nonresponse bias. MMAT scores for each study are included in Supporting Information 1.

5 | DISCUSSION

The overarching aim of this review was to synthesise and analyse the empirical literature that explores the attitudes of patients and health workers towards strike action, and more specifically to explore (1) patient and health worker support for strike action and (2) the predictors for supporting strike action or the reasons given for engaging in strike action and (3) to explore the quality of included papers.

In relation to the first question, patient and healthcare worker support for strike action; while some studies suggest that patient attitudes toward strike action are mixed, others suggest that patients and their relatives reported substantial grievances and anger in relation to strike action. A number of studies identified those most impacted by a strike felt that their care was not as good as it could have been, expressed less trust and had a more negative perception of the healthcare system overall. The studies that examined patient background suggested it may be those who are most socioeconomically disadvantaged who are most impacted by strike action. Importantly, studies that explored patient opinion about the reasons behind strike action were consistent with many of the findings below, noting poor pay, working conditions and infrastructure issues as key in prompting the action. Also notably, while divisive, the studies that examined patient perceptions of responsibility for strike action saw many largely hold the government and healthcare authorities responsible rather than healthcare workers.

Among health workers, while some studies reveal generally high levels of support, others suggest that such action is divisive and support is often split. In saying this, when looking at the studies included here, a pattern does emerge, at least somewhat. Strike action received generally high support in Israel and Croatia. In African countries (Nigeria and South Africa), support for strike action was lowest. Studies in the United States were most mixed, with support ranging from 55% to 83% depending on the study. Another notable feature that cuts across all studies and may explain some of the variance witnessed in the US studies related to the seniority of the staff surveyed. Generally, support for strike action was highest among students and decreased as healthcare workers progressed in their career.

In relation to the second research question, the predictors for supporting strike action or the reasons given for engaging in strike action; a range of individual, systemic, structural and even historical and cultural factors can influence whether healthcare workers strike. As noted above, career stage was important, however, a number of further factors were identified and raised frequently in the literature. These included working conditions (which included concerns around issues like leadership or management or infrastructure); income, with generally those lower paid more support of strike action. While less reported, those from an ethnic minority background and union members were also more likely to endorse strike action. The study carried out by Kowalchuk (2018) stands out here, suggesting that support for strike action, or lack thereof, is tied to deeper cultural and historical factors.

The final aim of this paper was to explore the quality of the studies included in this review. While the majority of studies were generally of high quality from a methodological standpoint, there is arguably a broader issue not captured in the quality appraisal above, namely the generalisability of some of the studies included in this review. Part of the problem here is that strike action can take a range of different forms and occur under vastly different social and political conditions. This has been long recognised, Eldridge (1968, p.3) for example, argued that ‘one cannot sensibly speak of a strike as though it were a single category of social action. There are varieties of strikes and indeed, the very same social conditions which give rise to certain kinds of strikes may also lead to the diminution of other kinds of strikes’. With the exception of the studies that examined the Israeli doctors strike, many of these studies were carried out in very different contexts and examined very different strike actions. This leaves a body of evidence which makes generalisation quite difficult.

This is not an issue for all studies included in this review, a number of studies were clearly cognisant of these issues, however, it does pose a challenge for the quantitative studies included here, many of which may not be generalisable beyond the strike that they explored.

In saying this, these findings are worth putting into context with the broader literature about industrial relations and protest in relation to health and healthcare. The fact that strike action (or its threat) have been a common phenomenon in healthcare has not gone unrecognised, with a growing literature exploring these episodes/acts and examining their causes. In relation to nursing, in particular, McKeown (2009, p. 149) contends that industrial action has historically been 'complicated by a pursuit of professional status, images of nurses as a largely passive workforce, [and] subordination within medical and gender hierarchies'. While Briskin (2012) similarly suggests that 'professionalism, and in particular the commitment to service; patriarchal practices and gendered subordination; and proletarianisation and the confrontation with healthcare restructuring' have all been instrumental factors in promoting 'nursing militancy' and shaping solidarity within and outside of the nursing profession. To some degree, the results presented here reflect these complexities. First, in terms of considering solidarity in relation to strike action, notably, we did not include papers that examined support of the general public; our results, however, suggest that patient support was mixed, but it may be those particularly vulnerable and socioeconomically disadvantaged greatest impacted. Notably, despite mixed support for strike action, in all studies that asked about responsibility, the majority of participants identified the government and other authorities as responsible rather than healthcare workers. In terms of patient care and outcomes, when the question was explored it was identified as a barrier by the majority of participants. Here we also find some notable patterns with those in junior and more precarious employment are more likely to support strike action. A number of studies also appear to build on
the observations above. Kowalchuk (2018), for example, suggests that while nurses in Nicaragua and El Salvador were critical of the government and other policies related to their oppression, they continued to utilise a ‘language of submission’. Notably this study focuses on the role of religion as a barrier to industrial action, historically and in the present day in reinforcing a ‘culture of subordination’. This review also sits alongside at least three recent systemic and scoping reviews that explore strike action. Two of these studies examined the impact of strike action on patient outcomes, notably mortality and a range of other patient outcomes (such as hypertension control and chlamydia rates; Essex, Milligan, et al., 2022; Essex, Weldon, et al., 2022). Notably, while each review notes a number of limitations in regard to the literature, it was found that strike action did not result in an increase in patient mortality and did not negatively impact a range of other patient outcomes. The final review explores the literature that examines the justifications given for strike action (Essex & Weldon, 2021b). Similar to the results above, this review found that concerns about the impact of strike action on patients weighed heavily in debates about the justifiability of health worker strikes. Importantly this study also points to the importance of considering the nature of the strike and the context in which it is occurring in considering its justifiability.

In trying to make sense of the results presented above, beyond the existing literature, we explored some broader datasets. We explored four metrics, union membership and strike days per 1000 workers, both available from the ILOSTAT database (International Labour Organization, 2020), doctors per 10,000 population (WHO, 2022) and the Healthcare Access and Quality Index (HAQ), an index for “personal health-care access and quality” (Barber et al., 2017). These metrics were collated (Supporting Information 2) with several of the other variables above. There were again a number of notable trends. First, we can see that Croatia and Israel, two countries that reported high support for strike action, also had high union membership, relatively high-quality healthcare (as measured by the HAQ index), and in Israel’s case, multiple strikes days that year. Nigeria, South Africa, Nicaragua and El Salvador, countries where strike action had relatively little support also had generally poorer quality healthcare. However, South Africa also had relatively high union membership, which makes this result somewhat difficult to interpret. Finally, the six studies conducted in the United States present a relatively mixed picture. As can be seen, in the years of the strike in question, while healthcare was generally of good quality, union membership and strike days were relatively low. This taken with the above results, paints a relatively complex picture, however, it suggests that a range of factors impact support for strike action, from broader cultural, political and structural factors, such as unionisation and general acceptance of strike action, systemic factors, such as the nature of the healthcare system, including infrastructure and work conditions, among other considerations, the strike itself and a range of individual factors, the most notable of which was being a student or early career.

The results presented here have a number of practical implications and suggest several directions for future research. In relation to the practical implications of this review, while headlines related to strike action often relate to pay or working conditions, the reasons why health workers strike are often mixed and far more complex. Furthermore, attitudes are not static and likely to shift over time and throughout the duration of a strike. This speaks to the importance of how strike action is framed, not only to gain public support, but in gaining the support of healthcare workers. Strategies for maintaining solidarity and support for the action should also be considered a priority during a strike. Notably, while patient attitudes toward strike action were mixed in the studies above, it is worth noting that strike action undertaken by health workers have historically been broadly supported by the general public (Briskin, 2012). There are several directions for future research that have also been identified. Notably, the focus of this review could be seen as a general shortcoming, future research should capitalise and build upon the data we have presented here in a more focused fashion. There are several areas for research that appear to be particularly needed. First, while there has been research related to beliefs or predictors related to support for strike action, less has been said about perceptions related to the justification of strike action; furthermore, the evidence we have in this area is largely heterogeneous, spread across several countries and decades. Second, there is scope for more longitudinal work to map how strike action and support for it change over time. Third, there is scope for further research on the historical and social drivers of strike action more generally. And finally, there appears to be a paucity of research related to patient perspectives. More could be done to examine patient perspectives, public perspectives and more generally, the perceived impact of strike action on the delivery of care, notably there were few studies conducted with patients after 1990. Finally, while strike action is one of the most recognisable forms of visible protest in the workplace, it is not the only form of action. There is a modest and growing literature on the subject of ‘every resistance’ or resistance that generally occurs in a clandestine fashion in healthcare (e.g., see Shutzberg, 2020). While more generally, there is limited evidence exploring the relationship between hidden and visible forms of resistance, in relation to health workers, this is one further area which may be fruitful in explaining health worker resistance and strike action.

6 | CONCLUSIONS

 Strikes have been and will remain a divisive form of action in healthcare. While strike action is likely to continue into the foreseeable future, the support for such action is likely to vary substantially. For those on the front lines perhaps contemplating such action, support from the public and solidarity among healthcare workers is critical if the demands of a strike are to be realised. While not all strikes are widely supported, many are. While there is a need for further research here, there are arguably lessons on here in how strike action is framed, the conditions that led to the dispute and the way the planning around the strike. On this point, we also have lessons on what not to do, with the 1986 Ontario doctors strike an
illustrative example of a strike that not only failed to gain public support, but also came with significant moral costs. For those concerned about the impact of strike action and how this may be addressed, there is a need to look beyond the headline dispute. The results above suggest that while health workers often strike because of workplace conditions and remuneration, there are a range of other reasons why healthcare workers strike. Almost always these reasons are connected to broader systemic failings and neglect. While the immediate threat of strike action may be addressed through mediation or some type of compromise, only investment in healthcare systems and the people that support them will address the problem of strike action over the longer term.

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CONFLICT OF INTEREST
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DATA AVAILABILITY STATEMENT
There is no data associated with this submission.

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REFERENCES


**SUPPORTING INFORMATION**

Additional supporting information can be found online in the Supporting Information section at the end of this article.