Original Research

Managers attitude towards implementing workplace health promotion programmes to employees in eldercare: a cross-sectional study

J.R. Christensen a,*, C.M. Larsen b, c, d, M.I. Kolind a, b

a Research Unit of General Practice, Department of Public Health, University of Southern Denmark, J.B Winslowe Vej 9A, 5000, Odense C, Denmark
b Department of Sports Science and Clinical Biomechanics, University of Southern Denmark, Campusvej 55, 5230, Odense M, Denmark
c Health Sciences Research Centre, UCL University College, Niels Bohrs Alle 1, 5230, Odense M, Denmark
d Department of Physiotherapy, UCL University College, Niels Bohrs Alle 1, 5230, Odense M, Denmark

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ABSTRACT

Objectives: To determine the attitudes of eldercare services managers to the potential health benefits of workplace health promotion programmes (WHPPs), including physical exercise during working hours and the feasibility of implementing a WHPP at the workplace.

Study design: A cross-sectional study.

Methods: Respondents filled out a 14-item questionnaire on attitudes towards the potential health benefits of WHPPs and the feasibility of implementing WHPPs. Differences between groups were analysed using the Kruskal-Wallis test. The significance level was set to \( p = 0.05 \). Bonferroni’s correction was used in the setting of multiple comparisons. A content analysis was performed exploring answers provided in the optional comment section in the questionnaire.

Results: 695 eldercare services managers in Denmark were contacted by email, 393 replied, and 382 respondents were included in the analysis (54.7%). The survey revealed that 89.8% of the respondents believed that WHPPs would increase health, 89.6% believed that it would increase well-being and 87.6% believed that WHPPs would increase workability among workers. 87.7% expressed a willingness towards implementing WHPPs and believed ‘it to be a good idea’. Respondents with a negative attitude to the feasibility of implementing WHPPs, were more likely to hold negative attitudes to the potential health benefits of WHPPs (\( p < 0.001 \)). Organisational issues were the most frequently stated barrier to implementation.

Conclusions: The majority of eldercare managers expressed a positive attitude to the benefits of WHPPs and their implementation. Addressing organisational issues and ensuring management support in the planning stage of a WHPP is highly important.

1. Introduction

According to the World Health Organization, the workplace offers an ideal setting and infrastructure to support health promotion to a large audience and should be considered a priority setting for health promotion in the 21st century [1]. Studies have shown that Workplace Health Promotion Programmes (WHPPs) can improve health-related outcomes and facilitate healthier behaviour and lifestyles among employees [2–5]. However, a common problem with implementing WHPPs is low participation rates [6], with one of the cited reasons being a lack of support from managers [7–9]. Multiple studies have examined potential barriers and facilitators of employee participation in WHPPs. However, only a few studies have investigated the attitude to WHPP among workplace managers [10] and to what extent this affects the managers’ willingness to implement WHPP.

Healthcare workers (HCWs) involved in eldercare represent a high-risk population regarding musculoskeletal disorders. Work in eldercare is characterised by long periods of standing and walking as well as working in awkward postures and involves a large amount of manual work tasks with high peak force [11]. Moreover, employees working in eldercare suffer from a high prevalence of obesity and poor physical performance capacity [4,11,12]. Previous findings indicate that the combination of exposure to physically demanding work tasks, having poor physical capacity and being overweight are likely to be the cause of the high prevalence of musculoskeletal disorders among HCWs in eldercare [5,13,14].

* Corresponding author.
E-mail address: jrchristensen@health.sdu.dk (J.R. Christensen).

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Effective, well-documented programmes for weight reduction, improving physical capacity and reducing musculoskeletal pain among HCWs are thus needed. Multi-component WHPPs including physical exercise during working hours have shown to be effective in improving health-related outcomes of HCWs working in eldercare [15–19]. Given the challenge in ensuring employee participation in WHPPs, previous studies have emphasised the importance in understanding the barriers that prevent participants from attending [20–22]. To our knowledge, this is the first survey to explore these barriers from the perspectives of eldercare managers. In the present study, when addressing the term WHPPs, it is understood to include workplace physical exercise.

Therefore, the aim of the present survey was to determine the attitudes of municipal eldercare services managers to the potential health benefits of WHPPs, including physical exercise during working hours and the feasibility of implementing WHPPs at the workplace.

2. Methods

2.1. Recruitment

Potential respondents were identified through online searches. We systematically searched through the website of each of the 98 Danish municipalities and were able to locate 698 valid emails of municipal managers working in eldercare. These represent an estimated 60% of the target population [23]. At the end of October 2016, we contacted all 698 potential respondents by email. The email contained an invitation and a link to a web-based questionnaire. All responses were obtained via SurveyXact. The cover letter for the questionnaire detailed the length and purpose of the study and questionnaire, also ensuring anonymity of the respondents. The respondents were also made aware that informed consent to take part in the study was presumed, based on a returned questionnaire but also that their consent could be redrawn at any time.

2.2. Questionnaire

The questionnaire was originally drafted by health researchers at the University of Southern Denmark and bachelor degree healthcare students at the UCL University College. Subsequently focus groups interviews and pilot testing was performed to ensure adequate face validity for each item. Initial pilot testing revealed the average response time to be approximately 7 min. A reminder was sent to all non-responders ten days after the first email has been sent. The data collection period was four weeks, between October 2016 and November 2016. The questionnaire consisted of 14 closed questions and one optional comment section. The first six questions related to categorical background information; gender, age group, years of employment, demographic region, management level (middle or top management) and type of workplace; home care (where municipal services are provided during home visits) or care facility (where the elderly lives at a municipally managed care centre). The remaining eight questions detailed attitudes towards WHPPs (three questions) and the feasibility of implementing WHPPs including physical exercise at the manager’s workplace (five questions). These questions asked the respondents to rate their level of agreement using a 4-point Likert-scale containing the options ‘not at all’, ‘to a small degree’, ‘to some degree’ or ‘to a high degree’ of agreement indicating a score ranging from 1 to 4. A ‘don’t know’ option was also available for the last eight questions. In this paper all questionnaire items are presented in abbreviated form in Tables 1–3 (for the full questionnaire, see Supplementary File 1).

The eight questions relating to attitudes to the feasibility of implementing WHPPs were prefaced with a short description of the intervention protocol from the project FRIDOM (FRamed Intervention to Decrease Occupational Muscle pain) [24]. The protocol is published elsewhere [24]. In short, the FRIDOM intervention consisted of individually tailored physical exercise, cognitive behavioural therapy and dietary advice. Respondents were asked to respond in a manner as if a

| Table 1 | Characteristics of respondents stratified by management level. |
|---------|-----------------------------------------------------------------|
|         | Middle management | Top management | Total |
|         | n (%)             | n (%)          | n (%) |
| Region of employment |                     |                |       |
| North  | 15 (7.8)          | 43 (22.6)      | 58 (15.2) |
| Central | 18 (9.4)          | 37 (19.5)      | 55 (14.4) |
| Southern | 67 (34.9)        | 64 (33.7)      | 131 (34.3) |
| Capital | 39 (20.3)         | 20 (10.5)      | 59 (15.4) |
| Zealand | 43 (27.6)         | 35 (21.7)      | 78 (20.7) |
| Gender  |                    |                |       |
| Female | 183 (95.3)        | 175 (92.1)     | 358 (93.7) |
| Male   | 9 (4.7)           | 15 (7.9)       | 24 (6.3) |
| Age    |                    |                |       |
| <30    | 1 (0.5)           | 0 (0)          | 1 (0.3) |
| 31–40  | 22 (11.5)         | 14 (7.4)       | 36 (9.4) |
| 41–50  | 67 (34.9)         | 52 (27.4)      | 119 (31.2) |
| 51–60  | 83 (43.2)         | 97 (51.1)      | 180 (47.1) |
| >60    | 19 (9.9)          | 27 (14.2)      | 46 (12.0) |
| Years of employment |               |                |       |
| <5     | 49 (25.5)         | 28 (14.7)      | 77 (20.2) |
| 5–10   | 48 (25.0)         | 46 (24.2)      | 94 (24.6) |
| 11–15  | 51 (26.6)         | 44 (23.2)      | 95 (24.9) |
| 16–20  | 29 (15.1)         | 33 (17.4)      | 62 (16.2) |
| >20    | 15 (7.8)          | 39 (20.5)      | 54 (14.1) |
| Type of workplace |                |                |       |
| Care facility | 130 (67.7)     | 154 (81.1)     | 284 (74.3) |
| Home care | 62 (32.3)        | 36 (18.9)      | 98 (25.7) |

* Denotes a statistically significant difference between the distribution of top- and middle management across the five Danish regions (Chi square test statistics, p < 0.001).

| Table 2 | Attitudes towards the potential benefits of WHPPs including physical exercise. |
|---------|-----------------------------------------------------------------------------|
| I believe that WHPP could have a beneficial effect on: | To a high degree n (%) | To some degree n (%) | To a small degree n (%) | Not at all n (%) | Don’t know n (%) |
| health | 202 (52.9) | 141 (36.9) | 36 (9.4) | 1 (0.3) | 2 (0.5) |
| well-being | 187 (49.0) | 155 (40.6) | 35 (9.2) | 4 (1.0) | 1 (0.3) |
| workability | 161 (42.1) | 174 (45.5) | 38 (9.9) | 3 (0.8) | 6 (1.6) |

*a* Translated and abbreviated from original questionnaire, WHPPs = Workplace Health Promotion Programmes.

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2.3. Analysis

We analysed data using SPSS for Windows version 26. Internal consistency on scaled items were investigated using Cronbach’s alpha. Differences between groups were analysed using the Kruskal-Wallis test. Significance level was set to p = 0.05. Mann-Whitney U statistics with applied Bonferroni’s corrections was used in the setting of multiple comparisons [25]. Distribution of categorical variables across the five main regions of Denmark (North Denmark Region, Central Denmark Region, Region of Southern Denmark, Capital Region of Denmark and Region Zealand) were examined using the Chi-squared test. Optional comments were utilised in a content analysis aimed at exploring perceived barriers among managers with a negative attitude to the feasibility of implementing WHPPs. These respondents were defined by having a score of ≤2 on the 4-point Likert scale on both the manageable and realistic items (supplementary File 1 - item 12 and 14).

The content analysis was performed utilising systematic text condensation [26]. This procedure contained four steps: 1) Reading all comments to provide an overview and identifying common themes.
related to the study aim. 2) Condensing the meaning of each comment into one or more subthemes. Comments at first seen as irrelevant to the study aim were compiled in one sub-theme and re-investigated for thematic relevant content. Irrelevant comments were discarded from further analysis. 3) Merging subthemes with overlapping thematic content into main themes. 4) Summarising the content of main themes through a re-reading of related comments and sub-themes (supplementary File II: Coding categories). We chose an inductive approach to explore the managers’ attitudes while avoiding any presumptions associated with pre-established thematisation.

3. Results

3.1. Characteristics

Of the 698 questionnaires sent out by email, three were returned as automated replies (two were due to long-term sickness absence and one was due to vacation during the survey period). We received 393 replies (56.5%) of the remaining 695. Incomplete responses constituted 11 cases (2.8%), which were removed from the data leaving 382 (54.7%) responses to be analysed. Demographic characteristics can be viewed in Table 1.

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There were no regional differences in gender distribution, age, years of employment, or type of workplace (home care or care facility), while management level (middle or top management) was different across the five regions reaching statistical significance (p < 0.001).

3.2. Attitudes towards potential benefits of WHPPs

Table 2 shows the attitudes towards the potential benefits of WHPPs. The three items on the ‘Attitude’ dimension showed high internal consistency, α = 0.869. The majority of the respondents expressed a belief that WHPPs including physical exercise would ‘to some’ - or ‘to a high degree’ increase well-being and lead to more healthy and productive workers. In numbers, attitudes towards the beneficial effects of WHPPs leading to increased health was 89.8%, well-being 89.6% and work-ability 87.6%. Attitudes towards the beneficial effects of WHPPs were similar across region, management level and type of workplace.

3.3. Willingness to motivate and implement a WHPP

Table 3 shows the managers’ perceived feasibility of implementing a WHPP at the workplace, including physical exercise, as well as their willingness to motivate employees by personally participating in the WHPP. The five items on the ‘Feasibility’ dimension showed high internal consistency, α = 0.842. While there was a general consensus among managers that WHPPs are a good idea (87.7% responded ‘to some degree’ or ‘to a high degree’), the majority agreed that the implementation of a WHPP would require extra work on their behalf (80.9% responded ‘to some degree’ or ‘to a high degree’). However, most believed this challenge to be manageable and the implementation of a WHPP to be a realistic goal, at least ‘to some degree’. However, approximately one third believed ‘to a small degree’ or ‘not at all’ that the implementation of a WHPP was realistic or manageable. The managers in Capital Region of Denmark generally had a more positive attitude on the feasibility of implementing WHPPs compared to their counterparts in Central Denmark Region or Region Zealand (p < 0.01). The managers in Region of Southern Denmark had a more positive attitude to the feasibility of implementing WHPPs compared to their counterparts in Region Zealand (p < 0.01).

71 (18.6%) of the 382 respondents included in the analysis, had a score of ≥2 on the 4-point Likert-scale (stating ‘to a small degree’ or ‘not at all’) on both the manageable and realistic items (Table 3) and were included in a content analysis. These 71 respondents similarly scored lower on all measures of positive attitudes towards the benefits of implementing a WHPP (p > 0.01). These respondents did not differ from the rest of the sample on any background characteristics.

3.4. Implementation barriers for a WHPP

42 (58.3%) of the 71 respondents with a negative attitude to the feasibility of implementing a WHPP, chose to write something in the optional comment section. These comments were incorporated in the content analysis, exploring perceived barriers of implementation. On this basis, we identified four major themes relating to perceived barriers; 1) ‘poor economy and/or time resources’, 2) ‘lack of motivation amongst workers’, 3) ‘not a corporate responsibility’ and 4) ‘already established competing offers’. Nineteen of the 42 respondents saw practical organisational issues as a barrier. Some managers reported that the budgeting systems and procedures did not allow the scheduling of a WHPP, some organisational issues as a barrier. They reported having had poor experiences with previous attempts at implementing exercise at the workplace (mainly outside of working hours), stating that very few workers supported the idea and that any workplace exercises were quickly cancelled again. Moreover, one respondent expressed concerns that the groups most at risk were the least likely to partake. Another respondent felt that group training would be too confrontational for obese HCWs. Seven of the 42 reported that they already had established competing offers for workers, which were different from the FRIDOM-protocol but which they found more suitable for their workplace [24]. This included 5–10 min of daily morning exercise, discounts on memberships in local gyms and encouraging the HCWs to perform preventive exercise training with the elderly during home visits. Six respondents expressed the opinion that WHPPs were not a corporate responsibility. These six respondents believed exercise to be a personal responsibility and/or that exercise should not be performed during working hours. Some of these respondents commented that their primary responsibility should be eldercare, emphasising that this should take precedence over measures such as WHPPs. One manager suggested having the HCWs sign a binding agreement to participate in exercises 1 h a week, presumably in their own time.
4. Discussion

The main findings were that eldercare managers generally thought that WHPPs including physical exercise had positive health benefits and would increase well-being and workability among HCWs. The majority of the managers also believed that implementing a WHPP at their workplace was ‘a good idea’ and found that it would be both realistic and manageable to implement a WHPP at their workplace. However, the managers who had a negative attitude to the feasibility of implementing a WHPP at their workplace, were more likely to think that WHPPs were less beneficial to the health, well-being and workability among HCWs.

The results presented within this study indicates that a majority of healthcare managers are aware of the potential benefits of WHPPs and think that implementing a WHPP at their workplace would be both manageable and realistic to accomplish. The finding is important as managerial support is known to facilitate a successful implementation of WHPPs [27]. Moreover, most managers reported a willingness to personally participate in a programme, which has previously been shown to be a facilitator for recruitment and physical exercise adherence in WHPPs [27]. Manager participation can also increase the managers’ commitment to and ownership of the programme as they develop an understanding of what they as managers can achieve on a personal level [28].

Compared to the rest of the study population, belief in positive health outcomes of WHPPs were significantly lower amongst managers who rated the implementation of a WHPP as less realistic or manageable at their workplace. In an interview-based study by Ilvig et al. of HCWs enrolled in the FRIDOM-project [24], respondents similarly reported that team managers who did not believe in the health benefits of a WHPP were an attendance barrier [20]. These findings reinforce the importance of making sure that managers are properly informed on the purpose and benefits of implementing and conducting WHPPs.

In the present study of organisational problems related to time-constraints, budgeting systems and existing workplace agreements, were the most commonly given reasons for thinking that the implementation of a WHPP was unfeasible. Problems with incorporating WHPPs during shift work is similarly reported as a barrier experienced by HCWs in a WHPP [20], which is further problematised when managers are unwilling to attempt to schedule shift work around the timing of the WHPP [20]. Shift work may in itself increase the risk of obesity and other lifestyle-related chronic diseases and further research is needed to elucidate how to facilitate the participation of shift workers in WHPPs. The questions related to the implementation of a WHPP implied that economic prerequisites had already been met. This may have led to a more positive attitude for some of the respondents. However, multiple respondents mentioned financial reasons as a relevant barrier. While this could be explained by subjects not reading the question in full, it could also be interpreted as an indication of deep-seated concerns of the financial costs of implementing a WHPP.

Value-based ethical considerations were also mentioned by some of the managers in the present study. They expressed a concern that engaging in a WHPP might remove focus from their core responsibility (facilitating eldercare) and that taking care of one’s physical health was primarily a personal matter, best reserved for one’s spare time. Similar concerns were expressed by HCWs in a study by Ilvig et al. where HCWs reported that they experienced a feeling of guilt when they left their colleagues or clients to attend WHPP sessions [20]. These situations may to some extent be ameliorated by having clear governmental guidelines incentivising managers to prioritise WHPPs or simply make WHPPs mandatory. A recent example of this was a pilot study carried out by Copenhagen Municipality in which 600 HCWs across ten nursing homes were included [29]. In this study, participation in the WHPP was made mandatory. The WHPP consisted of approximately 1 h of exercise during working hours [29]. The project was enough of a success that Copenhagen Municipality decided to introduce 35 min of weekly obligatory physical exercise for all 6500 HCWs employed in eldercare within the municipality [30]. This provides evidence of a willingness of governing agents to provide the legislative incentives and framework to enable WHPPs in Danish eldercare workplaces and should be taken as a clear indication that incorporating WHPPs at the workplace should be considered a corporate social responsibility [31]. Additionally, the Copenhagen study found that mandatory participation was the number one self-reported reason for taking part in the WHPP [29]. In the present study, some managers reported having previously failed at implementing WHPPs due to a lack of support from employees. Similarly, previous studies have found a lack of support from managers to be a barrier for implementation [20]. While having legislative or political backing (i.e. by making WHPPs mandatory throughout a region) may not in itself guarantee support from managers or employees, it may serve as a vehicle for social change, by providing a common starting point and a network of competencies across the region.

4.1. Strength and limitations

The addition of a completely open-ended question, in the form of an optional comment section provided respondents with the opportunity to provide creative answers while avoiding the bias that may result from suggesting responses [32]. While the number of respondents choosing to provide comments were surprisingly high, these respondents may represent a sub-population different from the rest of the respondents on unknown parameters, though no difference were found on demographic characteristics. The response rate in the present study was 56.5%. While providing a second reminder thereby prolonging the data collection period may have yielded a higher response rate and potentially increased the precision of our estimates, this is unlikely to change the overall findings and as the majority of results in this study are highly significant, we are rather confident in the representativeness of the findings [33].

5. Conclusion

Danish eldercare managers have positive attitudes towards the health benefits of WHPPs and a majority believe that the implementation of a WHPP at their workplace is realistic and manageable. The greatest reported barriers to implementation are organisational. In order to ensure support from managers, it is important that special attention is given to issues relating to the planning of employees work shifts and the timing of the WHPP. Additionally, a majority of managers were willing to personally participate in the WHPPs, and since this would likely increase commitment to and ownership of WHPP efforts, such willingness should be actively sought and encouraged. In conclusion, support for WHPPs in the Danish eldercare sector is high, indicating good potential for the implementation of exercise based WHPPs.

Ethical approval

This study was conducted in accordance with the Declaration of Helsinki and ethical approval was obtained from the Danish Data Protection Agency (journal no. 10944).

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Declaration of competing interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

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Appendix A. Supplementary data

Supplementary data to this article can be found online at https://doi.org/10.1016/j.puhe.2020.100049.

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