Youth Health and Safety Groups: Process Evaluation from an Intervention in Danish Supermarkets

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ABSTRACT
Young workers employed in temporary positions constitute a vast part of the employees in the Danish retail sector. The aim of the present study was to evaluate the implementation of an intervention to establish H&S groups for young workers in Danish supermarkets. The intervention aimed to include and involve the young workers in the management of their work environment and work conditions, and simultaneously to strengthen the organization's ability to include them in the H&S management. The study was designed as a multiple case study. Twelve youth H&S groups were established and ran for 2 months within 10 supermarkets. Results based on qualitative data suggest that H&S groups for young workers have potential for increasing inclusion and involvement in the work environment among the young workers and for being beneficial for the supermarkets. However, the implementation requires continuous support from the management and H&S representatives.

KEYWORDS
Ambassadors / H&S Groups / intervention study / participatory approach / precarious work / programme theory / process evaluation / resource persons / retail industry / young workers

Introduction

Young workers in the Danish retail sector

In the Danish retail sector, young workers (15–17 of age) employed in temporary positions for a limited number of hours a week constitute a major part of the employees. In the supermarkets with long opening hours and weekend operation,
they comprise almost half of all employees (Statistics Denmark 2018). For the main part of the young workers, this employment is their entry point to the labor market. They have not yet acquired knowledge and awareness of the work environment, and at some workplaces the introduction is limited, ‘ad-hoc’ or ‘fast-track’ (Nielsen et al. 2017a). Furthermore, the young worker often feel limishly encouraged to be involved in decisions regarding their work. The managers likewise do not expect young workers to be involved, given the temporary nature of their employment (Nielsen et al. 2017b). Nevertheless, some of the young workers will keep their job for two to three years and what is more important: The group of young workers constitute an important part of the social framework in the workplace. Work, performed by young people, has special attention in the Danish regulation of OSH (Arbejdstilsynet 2005). Children between 13 and 15 are only allowed do light work and not to use any kind of machines nor heavy lifting. The group between 15 and 18 can do work that is not considered to provide health or safety risks. However, only 2 hours on schooldays and 8 hours on holidays and a maximum of 12 hours a week. In general, they are not allowed to work from 8 pm to 6 am, but the retail sectors has gained a special permit to allow them to work until 10 pm. The regulations are lifted when they leave school.

Increasing the young workers’ engagement in issues regarding their work environment could prove beneficial for their performance as well as their safety. And the same is true for their employers’ awareness of the needs of young workers and their performance. This assumption was guiding the project behind this article. The project developed and tested a new system for involvement of the young workers.

The context of Health and Safety regulation

In the Nordic countries, employees are obliged to participate in the development and maintenance of a high and appropriate level of health and safety at work. The active participation is constituted in the rules for the establishment of a Health and Safety Organization (HSO). The employers carry the legal responsibility to ensure compliance with the regulation. In workplaces with more than 10 employees, the workplace has to establish one or more Health and Safety Committees. They are responsible for the daily as well as the general tasks of overseeing health and safety at work, through the performance of risk assessments (in Denmark referred to as WorkPlaceAssessments), proposal of prevention measures and for developing a strategic plan for ongoing improvements. A Health and Safety committee consists of managers and health and safety representatives from one or more Health and Safety groups (Workplace Denmark 2020; Executive order 1181).

Health and safety representatives are elected from and among the employees and must be in regular contact with these. However, in the retail sector, and especially in supermarkets, young workers rarely are part in this election process as they work at odd hours, when the adult staff tend not to be present. It falls to the health and safety representative to make managers and colleagues aware of and also to promote everyone’s health and safety. Since one of the challenges for the young employees is their lack of experience it is difficult for them to take part in this process (Limborg et al. 2018). Knowledge, experience, and involvement are considered some of the main elements of the ability to prevent health and safety risks (Executive order 1181). The exclusion from
the framework of the HSO might constitute an overlooked risk for the group of young employees.

The regulation states that all workers should be consulted concerning their health and safety. This obligation, however, is currently not fully met in the HSO system. Thus, it is important to develop new or additional systems to meet the challenge. A Health and Safety group specifically aimed at – and including representatives from – the group of young employees is proposed as an organizational system to meet this challenge. Given the special conditions of the young workers' employment, special considerations have to be taken into account. This includes duration of the involvement, abilities to participate within the working hours, knowledge of Health and Safety, training, tools and methods etc. Against this backdrop, we designed the ‘Youth Health and Safety Group’ (YHSG).

State of the art in research

Scientific evidence suggests that young people are a difficult target group for traditional information campaigns. Some scholars have argued that risk-taking behavior is part of young workers' identity formation process (Austen 2009; Lupton & Tulloch 2002; Mitchell et al. 2001). Adding to this is the fact that young people are often unaware of hazards or consider them a natural part of their work (Breslin et al. 2007; Nielsen 2012). Paired with a sense of ‘inferiority’ (Illeris et al. 2009), this makes the young a difficult group to influence through workplace interventions. Other researchers have contested this view by arguing that young people tend to start in a position at the bottom of the hierarchy and are therefore more exposed to risks than their older colleagues in better positions (Baarts 2004). Therefore, young people's injuries and behaviors are intersected with the workplace they are part of (Mitchell et al. 2001; Nielsen 2012). The 15–17 year-olds raise a special concern. Unlike, for example, apprentices and students, young people in leisure jobs do not seek to become part of a profession and industry, and do not feel the same connection to the workplace as their older colleagues. They work limited hours, are passing through their jobs, and are not likely to identify with their workplace (Mitchell et al. 2001). However, young people with a leisure job present a unique opportunity to create ambassadors for H&S at work in their generation. A recent report documented that a growing number of young people work in new and atypical jobs without the security of the traditional work H&S system (Nielsen et al. 2017b; Nielsen et al. 2019). This underscores the necessity for such ambassadors.

Purpose of the current project

This project was initiated by the H&S manager in a Danish supermarket chain (‘The Chain’). The H&S manager contacted the researchers because ‘The Chain’ wanted to develop a better and more research-based starting point for the company’s work with the working environment for their many young employees. The introduction of a new shops act in Denmark 2005 had expanded the opening hours for the supermarkets and thereby increased the need for young workers between 15 and 17 years. In practice, the young workers did not simply help out or carried out small tasks, but virtually
performed the same tasks as the other employees in the supermarkets, and ‘The Chain’ wanted to protect the H&S of these young workers.

The researchers expanded on the idea and designed a project encompassing: the development; implementation; and evaluation of an intervention targeting a population of 15-17-year old employees in the retail sector. An application was met by a grant from the Danish Work Environment Research Fund (see Acknowledgements). The overall aim of the project was to establish H&S groups for young workers (‘youth H&S groups’ – YHSG) in order better include and involve them in the management of their work environment and work conditions. This would create an extension of the established H&S groups, which would normally not have a particular focus on young workers’ needs. The Project’s strategy was to address the knowledge and education of the young people and the organization’s systems simultaneously. This approach is supported by previous research showing no incompatible contradiction between a focus on individual factors and organizational factors in prevention among young workers (Dyreborg et al. 2013).

The here reported study evaluated the implementation of the intervention project in which H&S groups for young workers were established in Danish supermarkets. The evaluation was guided by a program theory and utilized qualitative data.

**Methods**

**Design**

The study was designed as a multiple case study with interventions and separate process and effect evaluations. Two rounds of interventions were planned, each covering the implementation of two local projects (establishment of a YHSG as per the implementation plan (see table 2)). Experiences and drop-outs from the first intervention round led to changes in the design and revision of the second intervention round leading to a more compressed and intensified intervention process with only one local project at each workplace.

A realist evaluation approach was chosen for the study; the aim of a realist evaluation is to study the links between the inputs and activities of the intervention and planned outputs that may lead to the desired outcomes and have an impact (Pawson & Tilley 1997). The expected process from inputs to outcomes will be drawn in a program theory model pre intervention. In the model, the assumptions about what activities will lead to what outputs is outlined. The program theory for this study was drawn up in the design phase and is reproduced in the section ‘Analytical framework’.

**Participants**

Intervention supermarkets were allocated through the H&S manager in ‘The Chain’, and it was decided only to include large or medium sized supermarkets (50–200 employees) in the project. Further, the supermarkets had to have a H&S committee that did meet regularly (two to four meetings/year).

The supermarkets allocated for participation were geographically located all over the country in middle sized or large cities. Table 1 presents participation from each of
the allocated supermarkets as well as the number of young workers and work managers. In total, 272 young workers were employed at the supermarkets participating in the intervention (no 1–10 in Table 1). At each supermarket, two young workers were chosen as representatives in the YHSG and participated in the activities described in Table 2 and in the Result section.

### Intervention

The first round of the intervention ran between April and December 2016 and the second round between January and June 2017. Because young workers are temporary workers, it was planned to implement two local projects at each worksite in the first round of intervention. The aim was to reach more young workers and to support the continuation of the local YHSG. It was, however, only possible to implement two local projects at two of the worksites from the first round of intervention, and accordingly, only one local project at each worksite was planned in the next round. See Table 1 for an overview of compliance among the allocated supermarkets. Each local project lasted 8–10 weeks (see Table 2). First, a YHSG was established at each of the supermarkets including two young members, and at least one adult (safety representative or manager). Next, the group performed a workplace assessment analysis to evaluate hazardous work situations for the youth workforce (see section below and Figure 3). The young members were encouraged to suggest possible solutions and improvements to the work environment, and the solutions were then analyzed and rated according to the possible impact and the practical

### Table 1

Supermarkets participating in intervention activities and number of work managers and young workers at each of the intervention supermarkets

<table>
<thead>
<tr>
<th>Supermarket number</th>
<th>Dropped out before start</th>
<th>Completed one local project within first int. round</th>
<th>Completed two local projects within first int. round</th>
<th>Completed one local project within second int. round</th>
<th>Number of work managers</th>
<th>Number of young workers</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>No</td>
<td>Yes</td>
<td>No</td>
<td>–</td>
<td>6</td>
<td>44</td>
</tr>
<tr>
<td>2</td>
<td>No</td>
<td>Yes</td>
<td>No</td>
<td>–</td>
<td>9</td>
<td>26</td>
</tr>
<tr>
<td>3</td>
<td>No</td>
<td>Yes</td>
<td>No</td>
<td>–</td>
<td>3</td>
<td>11</td>
</tr>
<tr>
<td>4</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
<td>–</td>
<td>4</td>
<td>37</td>
</tr>
<tr>
<td>5</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
<td>–</td>
<td>6</td>
<td>41</td>
</tr>
<tr>
<td>6</td>
<td>No</td>
<td>–</td>
<td>–</td>
<td>Yes</td>
<td>10</td>
<td>32</td>
</tr>
<tr>
<td>7</td>
<td>No</td>
<td>–</td>
<td>–</td>
<td>Yes</td>
<td>6</td>
<td>24</td>
</tr>
<tr>
<td>8</td>
<td>No</td>
<td>–</td>
<td>–</td>
<td>Yes</td>
<td>4</td>
<td>17</td>
</tr>
<tr>
<td>9</td>
<td>No</td>
<td>–</td>
<td>–</td>
<td>Yes</td>
<td>5</td>
<td>29</td>
</tr>
<tr>
<td>10</td>
<td>No</td>
<td>–</td>
<td>–</td>
<td>Yes</td>
<td>5</td>
<td>11</td>
</tr>
<tr>
<td>11</td>
<td>Yes</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>7</td>
<td>21</td>
</tr>
<tr>
<td>12</td>
<td>Yes</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>3</td>
<td>18</td>
</tr>
<tr>
<td>13</td>
<td>Yes</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>7</td>
<td>50</td>
</tr>
</tbody>
</table>
opportunities for implementation. Finally, the group implemented selected changes and disseminated information regarding the actions taken, for example, on local social media. The group members were supported throughout the process by the safety representative, the researchers, and often also by the manager or deputy manager.

As part of the project, the researchers developed manuals for training courses, which were held at the start of the intervention, provided support along the way and conducted the final evaluation interviews.

The supermarkets were financially compensated by ‘The Chain’ for 12 hours for each young worker in the group.

**Data sources**

Information about the implementation was captured through questionnaires and various qualitative data sources (see Table 3):

- Researchers’ and participants’ notes and photo-documentations from the meetings.
- Researchers’ logbooks. After each encounter (either meeting, phone or on-line), a template was used to register time, content, and format. Some notes were short others detailed with descriptions of the atmosphere, nonverbal communication, and, for example, unspoken conflicts.
- Posts from the social media, text messages, messenger chats, and e-mails were snipped. In the second round of interventions, the researchers participated as observers in the social media groups that the YHSGs created in order to communicate

<table>
<thead>
<tr>
<th>Table 2</th>
<th>Intervention plan. Time schedule, activities, and participants</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Time</strong></td>
<td><strong>Activity</strong></td>
</tr>
<tr>
<td>Week 1</td>
<td>Start-up meeting with planning and adjustment of expectations.</td>
</tr>
<tr>
<td>Week 1</td>
<td>Selection of two group members for the YHSG.</td>
</tr>
<tr>
<td>Week 2</td>
<td>Training of the YHSG. This included acquiring knowledge of relevant work environment factors, selection of problem to address and development of an action plan aimed at implementing a change.</td>
</tr>
<tr>
<td>week 2–6</td>
<td>The YHSG examines the prevalence of the problem in the supermarket and carry out the planned activities.</td>
</tr>
<tr>
<td>Week 6</td>
<td>Follow-up meeting with evaluation of the progress</td>
</tr>
<tr>
<td>Week 6–10</td>
<td>The YHSG meet, and carry out the planned activities.</td>
</tr>
<tr>
<td>Week 10</td>
<td>Final meeting with evaluation of the process and results.</td>
</tr>
</tbody>
</table>
about work-related topics. The youth H&S group members posted, for example, information about the action plans they developed.

- Group interviews at the end of the intervention process with the participants from the YHSG. The interviews were conducted by a researcher, recorded, and transcribed in condensed summaries by a student. A semi-structured interview guide were followed covering simple questions as: What went well?, What went wrong?, What did the young workers learn from the experience? How could the process have been improved? How did the H&S representative experience the process? How can the experiences guide the future H&S work?
- The researchers created a case report for each supermarket from the data sources.

### Analytical framework

A realist evaluation approach was applied (Dalkin et al. 2015; Pawson & Tilley 1997) to examine the content and process mechanisms through which the systemic part of the interventions were effective (Nielsen & Miraglia 2016). The effect evaluation is reported elsewhere (in Danish) (Limborg et al. 2018).

A program theory (see Pawson & Tilley 1997) was created pre-intervention, see Figure 1. The theory encompasses two overall assumptions based on the two overall approaches to prevention in safety research: a social-psychological perspective focusing on the individual (i.e. the young people’s special risk awareness, knowledge, and behavior) and a systemic approach focusing on the workplace culture, norms and work routines (Dejoy 2005; Tharaldsen & Haukelid 2009). Further, the assumptions were contextualized and adjusted by input from practice conveyed by ‘The Chain’. The first assumption concerned the output on the social-psychological level. We assumed that establishing YHSG could put work environment on young workers’ agenda and teach

### Table 3 Collected qualitative data from each intervention supermarket

<table>
<thead>
<tr>
<th>Supermarket number</th>
<th>Log-book</th>
<th>Number of notes and minutes from meetings</th>
<th>Number of photo-documentations</th>
<th>Evaluation interview at the end of intervention</th>
<th>Number of communications documented from social media</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Yes</td>
<td>2</td>
<td>2</td>
<td>Yes</td>
<td>0</td>
</tr>
<tr>
<td>2</td>
<td>Yes</td>
<td>1</td>
<td>1</td>
<td>Yes</td>
<td>0</td>
</tr>
<tr>
<td>3</td>
<td>Yes</td>
<td>2</td>
<td>2</td>
<td>Yes</td>
<td>0</td>
</tr>
<tr>
<td>4</td>
<td>Yes</td>
<td>1 + 3</td>
<td>3 + 5</td>
<td>No</td>
<td>0</td>
</tr>
<tr>
<td>5</td>
<td>Yes</td>
<td>Integrated in logbook</td>
<td>3</td>
<td>No</td>
<td>0</td>
</tr>
<tr>
<td>6</td>
<td>No</td>
<td>3</td>
<td>0</td>
<td>Yes</td>
<td>2</td>
</tr>
<tr>
<td>7</td>
<td>No</td>
<td>1</td>
<td>9</td>
<td>Yes</td>
<td>2</td>
</tr>
<tr>
<td>8</td>
<td>Yes</td>
<td>1</td>
<td>3</td>
<td>Yes</td>
<td>3</td>
</tr>
<tr>
<td>9</td>
<td>Yes</td>
<td>1</td>
<td>5</td>
<td>Yes</td>
<td>1</td>
</tr>
<tr>
<td>10</td>
<td>Yes</td>
<td>1</td>
<td>1</td>
<td>Yes</td>
<td>3</td>
</tr>
</tbody>
</table>
the young members in the YHSG systematic H&S management. The other young workers were assumed to show greater interest in the work environment due to the groups’ work and the dissemination thereof, for example, by ‘posting’ and ‘liking’ pictures or updates of work environment-related topics in the social media groups used by the young workers and the YHSG.

The second assumption concerned the outputs at the organizational level. We assumed that the organization would incorporate the group of young workers into the H&S management through the interaction between the YHSG and the ordinary H&S committee. The YHSG was designed to work on a project basis for 3 months, and would in theory start over with new members and new topics to address for the next period. Seen from the perspective of the workplace, the group of young workers is a highly volatile group due to their fixed term contracts. Many of the young intervention participants were expected to leave the workplace before the project would be completed, but were expected to transfer useful knowledge of the Danish work environment system to their next job. The workplace would benefit by finding a way to include new young employees in the work environment work and in the working environment organization.

The following process-indicators from the program theory directed the evaluation:

1. Did the supermarkets comply with the intervention? (Arrow 1)
2. Were the activities in the supermarkets implemented as intended? (Arrow 2)
3. Did the group members in the YHSG select a problem to address and develop action plans aimed at implementing a change? (Arrow 4 and 5)
4. Were the action plans implemented, supported by the H&S representatives and communicated to the other young workers at the supermarket? (Arrow 6)

5. Did the young members of the YHSG s gain knowledge, awareness and experience of influence on work environmental issues? (Arrow 3 and effect indicator)

6. Did the efforts create awareness and experience of influence on H&S management factors among the other young employees? (Arrow 7 and effect indicator)

7. Did the intervention influence the priority of H&S management and the inclusion of young workers in the supermarkets? (Arrow 8 and effect indicator)

Results

During the first training workshop, the young participants were asked what their understanding of work environment/H&S was. The typical answer was: ‘It is something about how we interact with each other at work’, suggesting that the issue of collaboration was highly present in the young workers perception of work environment.

In the following, we relate the results from the study to each of the seven process-indicators from the programme theory.

1. Did the supermarkets comply with the intervention?

The first round: Six supermarkets were originally allocated to participate in the first round of the intervention, each was supposed to accomplish two local projects with YHSG s. One of the supermarkets chose to stop before the group was established, and three chose to stop after completion of the first local project with youth H&S groups.

The second round: Seven supermarkets were allocated for the second round of the intervention. Two of the allocated supermarkets decided to stop before the groups were established. Five accomplished the full round.

In total, 10 out of 13 possible workplaces finished at least one round of the intervention. The three supermarkets that dropped out before even starting the project had different reasons for this decision; for example, manager’s family problems or poor timing. One of the supermarkets that stopped after completing the first local project gave the reason that the gain did not match the effort it had required to support the group.

The store manager’s support was very important in the start-up period where all managers were indeed positive and supportive. The compensation gained from ‘The Chain’ signaled top level support, and this meant more to them than the financial compensation itself. However, it was not easy in all cases to maintain the store managers’ commitment throughout the project. A high turnover rate among store managers was the main obstacle. In one store, there were three store managers in the four months that the contact with the store lasted.

2. Were the activities in the supermarkets implemented as intented?

All components in the intervention plan (see Table 2) were implemented in all of the 10 supermarkets completing the intervention in either round one or two. At some workplaces, the follow-up meeting and the final meeting were held as phone or skype-meetings.
3. Did the young members in the YHSGs select a problem to address and develop action plans aimed at implementing a change?

In the training workshop (see Table 3), the YHSGs did a bespoke workplace risk assessment (see Figure 2 for an example). The participants put red post-its to indicate something they experienced as problematic and green on what they experienced as strengths. Based on this assessment, each of the groups chose to focus on one or two issues concerning their daily working life.

The groups showed great creativity in designing solutions. In some of the groups, the young participants worked unassisted to select focus and develop an action plan. Other groups needed more support from either the researchers or the H&S representative or the store manager.

4. Were the action plans implemented, supported by the H&S representatives and communicated to the other young workers at the supermarket?

**Implementation of action plans**

All youth groups managed to implement their developed action plans on the chosen issues. The main focus area for the efforts were establishment of:

*Procedures for introduction of new young employees:* In four of the supermarkets, it was decided to develop procedures for induction of new employees. Different models were developed; lists with tasks to be covered in the induction, a quiz with questions to practice and follow up on the learned, and in one site, a video was produced by the young group members and shown on Facebook and on a service-meeting for all the young workers.

In one of the supermarkets, they developed an induction set consisting of a written procedure for new employees, a plan for training in different areas, a fun pop-quiz for practicing and a checklist to be used by the person responsible for the introduction. They summarized the immediate benefits: ‘The new knows what to expect, the responsible
knows what to do, and NN [The manager] knows what he can expect the new employee to know’.

**Communication and guidelines for acute situations:** In some supermarkets, the group members became aware that they lacked guidelines for acute situations as, for example, robbery, stealing, acute illness among costumers, or fire. In one store, information was made available by posters and posts at Facebook and supported by a quiz with prizes to two young employees every week for correct answers. They further printed a small pocket-size calling card for all employees with internal ‘Nice to know’ numbers on the one side and with numbers for help in acute situations on the other side.

**Strategy towards angry costumers:** One YHSG chose to focus on the challenges they sometimes experienced when confronted with aggressive costumers. They started with a small investigation among their colleagues about experiences with surly costumers and how they manage. They found that a common problem occurred at the cash register, where costumers had a different perception of the price than the one on the bar code. When the management was informed of this, it was decided that as a general rule the customer’s idea of a price should always be accepted for differences below 30 D.kr [appr. 4 Euro]. This prevented a lot of uncomfortable situations for the employees and for the costumers.

**Accessibility and functionality of tools:** In some supermarkets, the young workers experienced problems finding the stools used, for example, for trimming on the high shelves (the act of placing the products in the right order at the shelves). This led to purchasing of new stools and to a system of fixed places for the stools. In one supermarket, the trolleys were rarely to be found where they were needed, and they launched an information campaign about availability of trolleys. In another supermarket the young group members pointed on a perennial problem with the bottle refund machine. A member was very familiar with the machine, and he decided to write a trouble-shooting manual and make it available at the the machine thus preventing future break downs.

**Norms for swapping shifts among the young workers:** In one supermarket, the group took initiative to invite all the young employees to discuss the norms and implicit rules for exchanges of shifts; appropriate time for response to a request and that it was okay to refuse to take a shift and to remind each other of answering. The initiative made it much easier to ask for swaps.

**The locker rooms:** One of the groups decided to purchase keys to all closets in the locker rooms so that their belongings would be safely stored during working hours. Further, they decided to clean up the mess and increase the cleaning standard, particularly in the boys’ locker room.

Examples of the initiatives taken by the YHSGs can be seen in three small films initiated by The Danish trade unions for employees and employers (BFA Handel [Brance Communities for occupational H&S, Retail]).

**Support from the ‘adult’ H&S committee**

Support from the H&S committee came primarily through the H&S representative’s participation in the youth group. It was therefore of importance whether the store already worked systematically with prevention or not. If continuity or commitment were lacking in the ‘adult’ H&S management practices, it was difficult for the YHSG to find support here.
At the workplaces where the intervention progressed best, the members in the YHSG were clearly motivated. They received efficient support from the management, and safety representatives, and researchers, in terms of practical and mental support in equal measure.

In the vast majority of cases, it was not difficult to motivate the group members in the YHSG. But motivation alone was not sufficient as a driver. Support was crucial. It could be with regard to the practical execution, for example, the development of methods and plans for implementation, or it could be support to ‘dare’ to take lead in such a task. Therefore, the organizational framework and the resources allocated were also crucial, as the young people did not have the opportunity to provide this by themselves. If either organizational resources or supportive culture or both of these two factors were missing, the intervention was perceived as less successful by the participants.

**Communication to peers**

As part of the project, the group members had to involve, or as a minimum inform, their young colleagues about their work and initiatives. This was, in some cases, difficult and sometimes discouraging for the young group members. After posting news at Facebook with only few ‘likes’ from the peers, a young group member said: ‘I felt like talking to a wall when I tried to spread the message, and after some time you lose a bit of courage’. Also at a workplace with successful results from the work and with highly supportive managers and safety representatives, a group member told: ‘The response from the managers and the adult colleagues were super, but our peers did not say so much’. However, several of the groups managed to communicate widely to the overall group of young employees.

Support from the young colleagues were primarily considered by the group members as a result of how good they had been themselves to involve the others. The support from the others was, however, not a prerequisite for their own motivation. This may be due to the fact that the contact between the young workers, often only happened in smaller groups, as they usually worked at different times.

The young workers apparently did not consider themselves as a collective group with a common voice. And there were no statements supporting that the group members found it motivating to act as ‘representative’ for the group of young workers. The motivation originated from the collaboration in the group, the relationship with the store manager and the H&S representative, and of the task itself and the feedback it might yield.

5. Did the young members of the YHSGs gain knowledge, awareness, and experience of influence on H&S management and risk assessments?

The members in the YHSGs were in all cases appointed and invited by the store manager or the deputy manager. Thus, it was young employees that had previously showed commitment and were regarded as resourceful. It was therefore no surprise that most of them expressed satisfaction and interest in the participation. A young employee proudly told: ‘It’s so very good to see what it is possible to achieve with so little effort—how little is needed to make changes’. 
The vast majority showed great commitment to the task they had chosen to perform, and for most of them, it was also straightforward to translate competences from the school in the form of planning a task, writing messages and keeping a diary over the course. It was also natural and easy for them to communicate to their colleagues via the store’s Facebook group.

As part of the training workshop, the group members were taught general H&S management; for example, heavy lifting, safe use of knives and pallet lifters, as well as prevention of aggressive and threatening behavior from customers. In the evaluation interviews, they all scored this as highly relevant topics to know more about. Some of the participants expressed a desire to learn and do more to improve the working environment following the project: ‘I want to know more about H&S management. I have realized that it actually concerns us. I might also be interested in taking part in work environment improvements in the future. I can really see that I can make a difference in my workplace’.

For some of the young group members, the group became an important channel of influence: ‘I’ve felt that I’ve been listened to in a different way because I’ve had the role you’ve been given me. ... It also gives you another inclination when you feel that there are some who listen to you’. Another says: ‘Before, it was just work, but now it’s a bit like we have a voice. And I feel like I dare to speak up without fear of getting picked on’.

The young group members highly appreciated this experience of having more influence. Not only because they liked the experience of being listened to, but also because they did actually have the opportunity to contribute with concrete solutions to problems: ‘It has become much easier to solve problems now that we have to make some decisions ourselves, and it is also very nice to solve a problem that I can solve’.

Some of the participants also stated that they had become more aware of the link between safety and quality of work: ‘Sometimes those who –who are trimming may not trim properly. I have, for example, often seen people trimming with one hand and have their mobile in the other’. Trimming, while at the same time talking in phone, may both influence the safety negatively and decrease the speed and quality of the work.

However, the groups were not equally successful in all supermarkets. In some of the workplaces the groups struggled harder to pitch their ideas than in others. A young group member tells: ‘We did not manage to convey anything to NN [the store manager]. It is a busy environment, and everything must be done now and here’.

In some instances, the group members were either not as motivated or not as competent to work independently with their action plans, even though there was available support from the workplace and the researchers. At one supermarket, one of the young delegates continued and fulfilled the aim of the action plan, even though he received only very limited support and encouragement from the supermarket. At another workplace, the young participants received support from the safety representative, but not at all from their peers, thus lowering the motivation and their perception of the process.

6. Did the intervention contribute to improved awareness of H&S among the other young workers?

The most palpable examples of the dissemination of working environment knowledge to other young workers were the development of the various induction programs and materials. The short video produced by one of the groups covered the main H&S
themes, just as intro-materials and pop-up quizzes conveyed general guidelines on the three issues: safety when using machines and knives, heavy lifting, and safety in checkout. In some cases, the material also included fire emergency and handling of chemicals. Thus, a different approach to knowledge emerged. Previous to their projects, the new young workers had received a pamphlet and verbal instructions, but now new channels for reaching the young population were created.

In many of the activities initiated by the YHSGs, the communication between the group members and their young colleagues focused on conveying instructions (e.g., the rules on dealing with price differences, ensuring clean-up in changing rooms, guide to the bottle refund machine, etc.). Initiatives of this kind are not first-order prevention, but a bit further down the prevention ladder, but they contribute to creating a better work environment. In addition, work with these themes empowered the young workers to work with problem solving and behavior change.

A manager was particularly aware of the volatility of the group of young workers and the need for dissemination of information: ‘I am certain that it is a good way to engage young people. They talk with each other, and if there are just some of them who share it, it spreads. It is also smart because as we have a big turnover of young workers, it is difficult to nurture a lasting commitment to H&S’.

Many of the initiatives, the YHSGs took, had particularly focus on problems related to the turnover of young workers, for example, the need for good induction procedures and guidelines for emergency situations, etc. This is an example of how the young group members noticed different problems from their adult colleagues, due to their particular position. They were able to address the problems of unique importance to their group, that had previously gone unnoticed.

7. Did the intervention influence the priority of H&S and the inclusion of young workers in the supermarkets?

In general, the project created increased awareness of young employees as a resource for the supermarkets. There was a clear, and not surprising pattern, that the workplaces experiencing the most successful YHSGs were also the most dedicated to continue the inclusion of the young workers in the H&S management.

Many of the group members were able to appreciate the challenges from the store’s perspective, and to focus on the customers’ experience of the store. Often the themes they addressed integrated the benefit of the customers and their own working conditions. An example is the initiative that led to directions on how to act in checkout, when customers complained about price differences. The initiative was prompted by the fact that not only dissatisfied customers create a poor psychosocial working environment, but also that dissatisfied customers are jeopardizing the store’s turnover.

However, it was by no means all supermarkets that perceived the group of young workers as an important resource in the workplace. A H&S representative says: ‘We should be much better at communicating with the young and making them respond. But they will never be part of the H&S group – they would never be allowed’. The H&S representative could not believe that the manager would support changes in the composition of the H&S group.

In some supermarkets, the project opened the managements’ eyes to the ability of the young workers to trouble shoot and identify possibilities for increased effectivity:
‘I hadn’t considered it before, but it’s a waste of time that they walk around spending a lot of time on finding the stools … what are the tools needed to perform their work as effectively as possible?’.

Another store manager also became aware of the potential in involving young people in solving the problems that may arise in the store: ‘Well, we will probably continue to involve the young people [in H&S management]. I think that many were surprised at how talented the young have been at this’. Furthermore, the same manager expresses the recognition that young workers play an important role in customer management: ‘They are, after all, a large part of the workforce in the company. The young workers get a lot of questions from customers, but the question is whether we really get the most out of the young workers in terms of work’.

The young workers had in some supermarkets challenged the usual habits at the workplace, for example, by using Facebook, video, and pop-quizzes actively in the communication process. In the store where the YHSG had made a video as part as the induction for their colleagues, the safety representative was clearly proud and was inspired to future H&S communication: ‘… the film they have made – I’ve also told them directly – I’m really proud of it and what they’ve accomplished in seven hours of work. I also think many of our colleagues are impressed, including the young. And it has given them more knowledge. But especially the adults, because our generation uses a lot of folders and prints and posters and notes, and yes, we also use Facebook, but I just don’t think that we consider videos that way. I didn’t even think about a video, so! And I believe it works far better. They had actually got leaflets delivered. And then we have thought about – should the introduction be in paper form? Or should we rethink our communication to the youth? I just think we have to think differently when we approach the youth today’.

**Maintenance of the intervention**

Even though the young group members and the supermarkets were positive towards the intervention, and even though the results of the initiatives taken by YHSGs were positive, the supermarkets did not continue the YHSGs after the intervention. Some of the supermarkets decided to continue to involve the young employees in the H&S management after the project had ended. However, in other forms than by maintaining the system of YHSGs. Some workplaces decided to invite a young representative to attend the regular meetings of the H&S committee. Others decided to organize special evening meetings addressing H&S problems for young workers, the so-called ‘pizza meetings’. In one store, the manager arranged a large meeting for the parents of the young workers. The agenda was to inform and engage the parents in their child’s workplace.

There were differences among the supermarkets, or perhaps especially among the store managers. It was evident that some of them had an eye for the qualities that young employees possess, while others saw them merely as a flexible workforce. Obviously, it was also the store managers with an eye for the young workers who were the most enthusiastic participants in the interventions, and it was the same that saw the potentials of continuing with similar activities. Unfortunately, there was also a very widespread mobility among these store managers, making them switch to other supermarkets, and accordingly making it unlikely for the YHSGs to be maintained at store level, but the idea may spread with the store managers.
**Discussion**

The results from the process evaluation of this intervention study in the Danish Retail sector showed that the successfullness of the intervention differed a lot among the participating supermarkets. In some supermarkets, the intervention was perceived as a great success, while in other supermarkets, it was perceived as a failure.

An evaluation following the seven steps in the program theory confirmed that the intervention followed the implementation plan in all the supermarkets that complied, the YHSGs managed to select problems and develop and implement action plans with different degrees of support form reserchers, managers and adult H&S representatives. The communication about the activities to the whole group of young workers varied, however, highly from one supermarket to another.

The first assumption of the study was that establishing YHSGs could put work environment on young workers' agenda and teach the young members in the YHSG systematic health and safety management. The other young workers were assumed to show greater interest in the work environment due the groups’ work and the dissemination thereof. This assumption was partly confirmed. In general, the young group members had very positive experiences of gaining knowledge, awareness, and influence on H&S issues. However, the effect for the other young workers highly differed between the supermarkets.

The second assumption was that the organization would incorporate the group of young workers into the health and safety management through the collaboration between the YHSG and the ordinary H&S committee. This assumption was partly confirmed as well. In many of the supermarkets, the intervention generated increased awareness of young employees as a resource, and in some of the supermarkets, the intervention generated plans of continuous inclusion of the young workers in the H&S work in different ways. The supermarkets experiencing the most successful output from the intervention were also the most dedicated to continue the inclusion of the young workers in the H&S management.

It is not an unusual finding from organizational intervention studies that the effect of similar interventions differs a lot from one worksite to another. It is well in line with the previously reported insight that an intervention may be successful under some circumstances and not under others (Albertsen et al. 2014; Nielsen & Miraglia 2016; Nielsen et al. 2006).

Following the steps in the program theory, the results indicated that the organizational framework and culture in the individual store, the support from management and safety representative and the committee members’ resources and willingness to be part of the youth H&S group were crucial to the successful implementation of the intervention. The dissemination of information from the young group members to their peers represented a potentially week element in the program theory, and seemed partly to depend on the young group members experience of support and trust in the organization, toward management and toward their peers.

Based on the presented results, it is our assessment that the YHSGs could contribute to a continuous improvement of the working environment in the supermarkets if the supermarkets chose to maintain and integrate the groups’ work into the ‘adult’ H&S organization. In several of the succesfull cases, the young workers had prioritized and analyzed problems from their own everyday experience and developed action strategies.
that, despite being limited in scope, represent systematic ways of working with the H&S at work.

**To give a platform for the young workers**

In general, the young workers in the retail sector seem to ‘go under the radar’. The store’s core workforce is perceived to be the employees on permanent contracts, who are primarily present from opening hours to 8 pm and only occasionally Saturday afternoon and Sunday. The young workers typically cover the weekend hours that also complement their school schedule. Since they also have fixed term contracts that typically last about two years, they are rarely perceived as – or perceive themselves – as part of the employee group. This condition may also be an important reason why it is not normal practice to involve the young people in, for example, the H&S system or in other staff-oriented initiatives.

The overall idea behind the project was to establish YHSG for young workers in order to include them in the daily management of their own working environment and empower them to influence their own working conditions. As such, the approach of the intervention was participatory (Nielsen et al. 2010b). And as suggested by Nielsen (2013), employees engaged in participatory organizational interventions gain new perspectives on their working life and learn how they can collectively question existing work systems. As well as they are given an opportunity to propose improvements of work arrangements, quality improvement, and work organization. This is well in line with Nordic Model of the labour market. Participation of employees is seen as a win–win situation and thus included as a basic element of general agreements and regulation. In the case of the young employees however, a vulnerable group – but also a group with a large potential – is overlooked in both regulation and practice.

Interventions in the tradition of the YHSG are all about empowering a minority group to shape their own environment. There were several examples in this study that this empowerment was in fact happening for some of the YHSGs who managed to select challenges and develop and implement action plans for solutions.

One of the assumptions behind the project was, however, that not only the group members but also all of the young employees in the supermarkets would be more aware of work environment issues and feel more included in the work environment. It can be questioned whether it was a realistic assumption for an intervention of this nature to create changes in the total group of young workers who are currently employed in the store. The argument for working with a smaller group of young workers is that the group of young workers is highly volatile, which calls for a setting-based approach (Fernandez et al. 2016). If supermarkets are to create positive changes, it is about influencing the culture that prevails in the group of young workers. This can be done by the permanent employees helping to promote the culture, and by the fact that ambassadors among the young people themselves show the way. Empowering ambassadors or resource persons as a method to influence their peers and bring about a positive change is well established within fields such as health education (Sokol & Fisher 2016). The method has also been documented to be feasible within H&S prevention projects as well (Grøn et al. 2014) – in Danish. If one wishes to influence the group’s culture related to prevention, one should not therefore, view the target group as a group of individuals but rather as the culture in ‘the existing group of young workers’.
Support from management and organizational culture

In relation to maintaining the commitment, the results stressed the importance of a supportive organizational culture, and this was primarily determined by the store manager or by the safety representative through their participation in the meetings of the YHSG. This result is in line with previous recommendations for intervention studies, stressing the importance of commitment from senior managers (Egan et al. 2009; Murta et al. 2007) as well as line-managers (Nielsen 2013).

As mentioned, it was difficult to maintain commitment for the project in supermarkets with replacement of managers. Frequent and fundamental changes at worksites has for long been recognized as an obstacle to the design and interpretation of effects in intervention studies (Olsen et al. 2008). In this study, we took the point of departure from our program theory that predicted a positive outcome on health and safety for young employees by including them in the health and safety work. We proved this to be possible, but in identifying the mechanisms that would bring the idea to practice we experienced several important obstacles. The implementation of the intervention was not possible at supermarkets where the cooperation between manager and safety representative(s) was not well functioning. An existing positive cooperation was thus the main mechanism for a successful YHSG. If the H&S committee was not able to solve the problems with H&S in general, and specifically problems in the psychosocial work environment, it was difficult for the YHSG to influence any conditions in the store. In one of the supermarkets, we experienced resistance from the manager toward all suggestions for changes taken by the young group members, maybe reflecting that the line-manager felt himself in a vulnerable and locked position between changing managers. Previous research has also found that line-managers may resist organizational interventions (Dahl-Jørgensen & Saksvik 2005; Randall et al. 2005) or drive the intervention in a negative direction (Nielsen 2013).

Motivation and commitment from the young workers

The results further suggested that support and commitment from the management and the safety representatives was necessary but not sufficient for successful implementation. Without the commitment, engagement, and adequate qualifications among the young group members, they could not have obtained results. This is in line with previous research stressing the importance of resources and employeeship among employees (Andersen & Borg 2017; Berlett 2011), and it further supports an understanding of interventions as events taking place in complex systems (Hawe et al. 2009), in which the successfullness is dependent on the match between the intervention and the existing system.

Match between intervention and culture

The approach taken in this study represented a systematic way of working with the H&S at work: the young group members had to prioritize and analyze problems from their own every-day experience and develop and implement adapted action strategies. That approach is to some extent in contrast to a more traditional, and in supermarkets
widespread – way of dealing with the H&S problems often limited to dealing with them when they arise and to find standard solutions. It does not appear that the supermarkets themselves will be motivated for such a ‘paradigm shift’ in the work environment work, it presumably presupposes a prioritization and follow-up from the central working environment management of the organization.

This suggests a more general assumption in line with the integrated approach suggested by Nielsen (2013) that interventions, in order to be maintained as part as the H&S work in each workplace must match the logic and assumptions of the workplace. Or alternatively, targeted support must be provided to develop the ability to analyze the underlying causes of the problems that are challenging in the workplace. With this point of departure, it is obviously an obstacle to include young employees in the H&S work if the ‘logic of retail supermarkets’ is that being young is only being a ‘visitor’ and not a part of the workplace.

**Ethical considerations**

As an integrated part of the intervention, the young group members had to promote their project and activities on relevant social media. As mentioned, this was sometimes a difficult and discouraging task, if they were met by silence from the group of young peers. In a vulnerable position and in a vulnerable age, it may be very demanding for a young person not to receive ‘likes’ from activities on social media from the peers. It cannot be ruled out that some of the peers may have felt disregarded themselves by not being part of the YHSG (see Nielsen 2013).

**Conclusion**

Process evaluation of this intervention study in the Danish Retail sector pointed out that both the organizational framework in the supermarkets and the young workers prerequisites and motivation to join the YHSG were decisive for a positive implementation of the intervention. This supports the idea that both factors should be involved and complement and enrich each other to achieve results with interventions in this area.

The approach of young workers to the involvement and their wish to work with H&S problems seems to be linked to the workplace practice and culture related to H&S efforts and employee involvement. In line with previous research, this study supports that H&S among young employees, perception of risk and insecure behavior is an inseparable part of the daily work practice and workplace culture, carried by all employees in the supermarkets. Thus, it is not a special feature of being young.

Thus, the implementation of H&S groups for young workers within the retail industry has potential for increasing awareness and involvement in the work environment among the young workers and for being beneficial for the supermarkets. However, the implementation requires continuous support and commitment from the management and H&S representatives. In some supermarkets the costs may exceed the benefits, while other supermarkets may experience high value for the costs. We have little doubt, however, that the H&S of young workers would benefit in either circumstance.
Other less resource demanding ways of integrating young employees in the H&S management in supermarkets could be inspired by the supermarkets who chose to continue the intervention in a modified form. One way is to invite a young representative to attend the regular meetings of the H&S committee. Another is to organize special evening meetings addressing H&S problems for young workers. A third possibility is to build upon the positive experience of conducting a bespoke risk assessment for young workers. An annual risk assessment is mandatory for all employees, but in addition, the H&S committee could conduct a bespoke risk assessment annually to ensure that the issues affecting that particular group surface. Lastly but not least, several of our cases proved that including young workers in developing and performing introduction programs for new young workers not only increased the attention of the newcomers but also initiated a number of highly creative ways of using social medias and giving attention to risks, prevention, and safe performance of work.

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References


Executive order 1181: Notice on cooperation regarding safety and health. DWEA notice #1181 of October 15 2010 including corrections.


