

Readiness to Change:
The Effects of Perceived Organizational Support and
Team Psychological Safety

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Abstract

The purpose of this study is to investigate how perceived organizational support and team psychological safety affect readiness to change. In addition to testing these effects, this study aims to explore individuals' construct comprehension to obtain a richer data sample and receive a deeper insight into the current constructs. Data was collected through a survey and in-depth interviews in collaboration with a medium-sized rehabilitation center, and a private claims department within a large-scale insurance company in Norway. The quantitative sample consists of 121 employees from both companies, where 12 of these participated in a semi structured interview. The present study proposed four hypotheses regarding the relationship between the variables through a structural equation model (SEM). The results indicate that perceived organizational support has a positive direct effect on team psychological safety, which in turn influences readiness to change. In addition, there is a positive direct effect of perceived organizational support on readiness to change. Qualitative data was examined through a thematic analysis, indicating an adequate construct comprehension of team psychological safety and readiness to change, with some minor discrepancies. The respondents emphasized the individual aspect of readiness to change. Further, participants' comprehension of perceived organizational support were nuanced. These findings suggest a closer look at the constructs and their operationalization. The findings from the thematic analysis supplement findings from the SEM-analysis, where the suggested relationships are supported. This study is an extension of earlier empirical research on organizational behavior, providing a deeper understanding of important predictors of readiness to change.

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Table of content

Introduction	1
Background.....	2
Readiness to change	2
Perceived organizational support	4
Team psychological safety	5
Development of hypotheses.....	7
Aim of this study.....	11
Method.....	12
The project.....	12
Mixed method.....	13
Data collection.....	13
Quantitative survey data	14
Qualitative interview data	19
Ethical considerations.....	21
Results.....	21
Results of the descriptive and preliminary analysis	21
Hypothesis testing – Structural Equation Modelling	21
Thematic analysis	26
Discussion	31
Implications	33
Limitations.....	40
Future research	42
Conclusion.....	43
References	44
APPENDIX 1: Measures in Norwegian.....	50
APPENDIX 2: Information letter w/ interview questions in Norwegian	52
APPENDIX 3: Measurement model 1 – Path diagram.....	54
APPENDIX 4: Measurement model 2 – Path diagram.....	55

Introduction

Modern work life is continually confronted with the urgency to implement change due to increasingly dynamic environments. Organizations are becoming progressively more complex as a consequence of technological advances and rapid demographic patterns. Consequently, an organization's ability to innovate and implement change is necessary to be efficient and maintain a competitive advantage (Holt & Vardaman, 2013). A global survey by McKinsey & Company (2008) suggested that successful organizational changes are difficult where as much as two-thirds of all change initiatives fail. The same ratio of failed organizational changes is documented in other research, supporting the notion that it presents a major challenge in modern work life (Burnes, 2009; Burnes & Jackson, 2011; Kotter, 1996).

Given the importance and high probability of failure, extensive research has addressed the issue of how to succeed with organizational change (Oreg, Vakola, & Armenakis, 2011). One of the consistent findings from change research is the importance of gaining so-called "employee buy-in", where employees have a positive attitude towards the change (Rafferty, Jimmieson, & Armenakis, 2012). It has been proposed that many organizational initiatives fail due to lack of employee support and belief in the proposed change (Oreg et al., 2011). For these reasons, readiness to change (CHA) has become a topic of interest for organizational change scholars. More specifically, there has been a greater focus on the antecedents of readiness to change in order to receive a clearer understanding of how to best manage the proposed change (Holt & Vardaman, 2013; Rafferty et al., 2012). Identification of antecedents has primarily focused on the impact of the organization's change management processes in fostering readiness (Rafferty et al., 2012), like establishing employee participation when implementing the change (e.g. Rafferty & Restubog, 2010) or the content of the change message communicated (e.g. Armenakis & Harris, 2002).

Research on how organizations can facilitate readiness in prior to a change initiative, is to the authors' knowledge, limited. A supportive environment, where the employee perceive the organization to be attentive to individual well-being (Eisenberger, Huntington, Hutchison, & Sowa, 1986), might play an important role in readiness to change, suggesting that employees will feel cared for in a demanding situation. Furthermore, as employees spend 50% more time collaborating today than they did 20 years ago (Cross, Rebele, & Grant, 2016), it is especially relevant to explore how team based work influences the relationship. Change activities often involve risks and uncertainty for employees, where team members must work closely together while taking risks, experiment and frequently experience failure

PREDICTORS OF READINESS TO CHANGE

(Edmondson & Mogelof, 2005). This kind of interpersonal risk of failure might threaten employees' readiness to change, which necessitates an environment where employees feel supported and safe within the organization and team.

The current study will investigate perceived organizational support (POS) and team psychological safety (PSY) as potential facilitators of change readiness. Prior research has established positive relationships between perceived organizational support and readiness to change (e.g. Eby, Adams, Russell, & Gaby, 2000; Gigliotti, Vardaman, Marshall, & Gonzalez, 2019) as well as between team psychological safety and readiness to change (e.g. Cataldo, Raelin, & Lambert, 2009; Rafferty et al., 2012). However, to the author's knowledge, no study has explored the effect of the combination of these variables on employee's change readiness. The aim of this thesis is therefore to explore the relationship between perceived organizational support, team psychological safety and readiness to change. More specific, this study will address the following research questions: Can perceived organizational support contribute positively to employee's readiness to change, and further, is there a positive effect of perceived organizational support on readiness to change through team psychological safety?

This thesis will first address the concept of readiness to change, before taking a deeper look into perceived organizational support and team psychological safety and how these constructs might relate to each other. Based on empirical research, four hypotheses are suggested, presented in a structural equation model. The study also supplements the quantitative data with employee interviews. Following the method applied to investigate and validate the hypotheses, are the presentation and discussion of the results with implications, limitations and suggestions for future research.

Background

The following section will elaborate on the current understandings of readiness to change, perceived organizational support and team psychological safety. Further, it will be described how these constructs will be investigated in the present study.

Readiness to change

A significant concern in the organizational research is the identification of the factors that foster or facilitate change within organizations. There is a general agreement that readiness to change is a key component in a successful change process, as it promotes employees' support for change (Armenakis, Harris, & Mossholder, 1993; Holt, Armenakis, Feild, & Harris, 2007; Oreg et al., 2011; Vakola, 2014).

PREDICTORS OF READINESS TO CHANGE

The concept of readiness to change is similar to Lewin's (1951) concept of unfreezing. In his change management model, he proposes that change can only be successful when an organization "unfreezes" from its current state, changing to a new status quo and then "refreezing" its change state. Change readiness is comparable to the unfreezing state where the employees' beliefs and attitudes about an upcoming change are influenced so that the employees perceive the change as both necessary and likely to be successful (Eby et al., 2000). Schein (1996) argues that the reason why so many change efforts turn into resistance is mainly because the organization is not providing for an effective unfreezing process before attempting to induct a change. Creating change readiness may be difficult because change usually requires the employees to unlearn their traditional ways of doing things and adopt new approaches and behaviors (Schein, 1996). Kotter (1996) argues that organizations who fail to create sufficient readiness constitute half of all unsuccessful extensive change initiatives, which is supported by other researchers who emphasize that if employees don't believe a change is needed, the change effort will most likely fail (Rafferty & Simons, 2005).

Armenakis et al. (1993, p. 681) have one of the most widely cited definition, which states that readiness to organizational change refers to individuals' *"beliefs, attitudes, and intentions regarding the extent to which changes are needed and the organization's capacity to successfully undertake those changes."* The definition implies that readiness to change can be thought of as a reflection of the employees' motivation, including a cognitive evaluation, leading to a behavioral intention to either resist or support the organizational change. These cognitive evaluations are claimed to be the "filters" to whether the employees decide that the change is needed or that the organization is capable of implementing the change (Zhou, Gao, Yang, & Zhou, 2005).

Vakola (2014) adds to the change readiness research by outlining three different concepts: Individual readiness to change, like having confidence in one's abilities; perceived organizational readiness to change, which is confidence in the organization's ability to manage the change; and the actual organizational readiness to change, describing the organization's ability to implement it. This implies that a person who is ready for change is someone who has a positive attitude towards the change where one is willing to support it and has personal confidence in succeeding (Vakola, 2014). Nevertheless, it is also someone who believes that the *organization* can undertake the change successfully (Armenakis et al., 1993). The extent to which the change is perceived as personally beneficial or harmful, is an important consideration of whether the change recipients will accept or resist the change

PREDICTORS OF READINESS TO CHANGE

(Oreg et al., 2011). Vakola (2014) argues that when readiness to change exists, the perceived benefits has outweighed the anticipated risks.

This thesis will intentionally investigate readiness to change on an individual level, referring to Vakola's (2014) conceptualization. However, the concept cannot be isolated, as Vakola herself argues that individual readiness is affected by the extent to which employees trust their organizations' ability to change. This could be functioning systems and available recourses for example, along with employee's attitude towards the organization and their job (Armenakis et al., 1993; Eby et al., 2000). These arguments are in accordance with Tetenbaum (1998) who emphasizes how important it is for organizations to create conditions that are favorable to change. Hence, one may argue a supportive organizational context alters individuals' interpretation of the organizational reality and the perceived readiness to change.

Perceived organizational support

Organizational support theory (OST) suggests that employees develop general beliefs concerning the extent the organization values their contributions and cares for their well-being (Eisenberger et al., 1986), referred to as perceived organizational support (POS). The concept refers to an assurance that help will be available from the organization when it is needed to perform in the job or to cope with stressful situations (Rhoades & Eisenberger, 2002). According to OST, POS is developed by employees' tendency to give their organization humanlike characteristics, where employees view the actions taken by agents in the organization as indications of the organization's intent rather than the agent's personal motives. Because of the organization's personification, employees view their treatment as an indication on whether the organization favors or disfavors them (Levinson, 1965).

The organization's discretion when providing favorable treatment is argued to be valuable to enhance POS (Eisenberger, Cummings, Armeli, & Lynch, 1997). When employees view the treatment as voluntary, it is an indication that the organization genuinely values and respects the recipient, as opposed to extraneous factors such as union negotiations or government regulations. Similarly, providing benefits that are specific to the employees' needs so they can make the most out of it, will supposedly increase POS (Kurtessis et al., 2015). Organizational support from both coworkers and supervisors have been linked to increased psychological well-being (Eisenberger et al., 2010). Although support from all the organizational members are related to POS, specific members closely embodied with the organization are seen as acting on its behalf (Eisenberger et al., 2010). This can be supervisors, who play an important role in evaluating subordinates performance and providing sufficient recourses to the employees (Eisenberger, Stinglhamber, Vandenberghe, Sucharski,

PREDICTORS OF READINESS TO CHANGE

& Rhoades, 2002). Further, in Rhoades and Eisenberger's meta-analytic review (2002) they found that fairness of treatment, supervisor support and organizational rewards were strongly related to POS. These findings are supported by the meta-analysis of Kurtessis et al. (2015).

It is argued that POS presumably evokes the norm of reciprocity (Eisenberger et al., 1986). The reciprocity norm stems from social exchange theory, which states that when a person is beneficially treated, the norm of reciprocity obligates to return the same well-treatment (Gouldner, 1960). In other words, when the organization treats the employee favorably, the employee will, based on the reciprocity norm, feel obligated to care about the organization's welfare and help the organization reach its goals (Eisenberger et al., 1986). Supposing the employer and employee apply the reciprocity norm to their relationship, favorable treatment will be reciprocated, serving for beneficial outcomes for both (Rhoades & Eisenberger, 2002).

Three psychological processes are argued to underlie the consequences of perceived organizational support (Eisenberger et al., 1986; Eisenberger et al., 2002). First, on the basis of the reciprocity norm, POS will lead employees to be motivated to greater job-related efforts and to perform extrarole behavior to better organizational functioning (Eisenberger, Armeli, Rexwinkel, Lynch, & Rhoades, 2001). This is caused by employees developing favorable attitudes and behaviors against the organization to balance out the relationship. Second, POS is assumed to fulfill socioemotional needs, like approval, esteem, affiliation and emotional support. As a consequence, POS is leading the individuals to identify themselves with the organization and thereby develop a greater affective organizational commitment. Third, POS is claimed to encourage the belief that the organization acknowledges and rewards employees who exhibit high performance, such as performance-reward expectancies (Eisenberger et al., 2001). Based on this understanding of the concept, employees who feel supported and valued by the organization would enhance the perceived safety to take interpersonal risks.

Team psychological safety

Psychological safety has roots in early organizational science, introduced by Bennis and Schein (1965) as an essential part of the "unfreezing" process required for change. They described psychological safety as the extent to which individuals feel secure and capable of changing their behavior in response to organizational challenges. Kahn (1990) presented a renewed focus on psychological safety suggesting that in a psychologically safe work environment, individuals will be more willing to express themselves both physically, cognitively and emotionally, without fear of negative consequences.

PREDICTORS OF READINESS TO CHANGE

Edmondson (1999) defines psychological safety as a shared belief that the team is safe for interpersonal risk taking. Edmondson differs from earlier research as she argues that psychological safety is better treated as a group-level climate, where the construct characterizes the team as an unit, rather than individual team members. She argues that team psychological safety describes an environment where team members can be comfortable being oneself and exposing one's thoughts, including asking questions, proposing new ideas, seeking feedback or reporting a mistake without the risk of being rejected. Psychological safe employees will therefore not fear that their colleagues will reject them for being themselves or saying what they think. Colleagues will have positive intentions to one another and are able to engage in constructive conflicts or confrontations (Edmondson, 1999). Pearsall and Ellis (2011) found that a team with psychological safety is related to open communication within the group, making the employees express their concerns and seek more feedback.

Psychological safety and trust have much in common as they both describe psychological states involving perceptions of risk or vulnerability, and making choices to minimize negative consequences (Edmondson, 2011). However, they do distinguish from each other. While trust refers to giving others the benefit of the doubt, psychological safety refers to whether others will give you the benefit of the doubt, when you for example make a mistake (Edmondson, 2011). It is also relevant to distinguish psychological safety from group cohesiveness, as they may seem to have similar characteristics (Edmondson, 1999). Research has shown that cohesiveness can reduce willingness to disagree nor try to challenge others' views, such as the phenomenon of Groupthink (Janis, 1972) where interpersonal risk taking does not feel safe. Furthermore, psychological safety does not indicate that the team members are close friends, nor an absence of pressure or challenges in the team. Rather, the concept is described as a climate where team members can discuss in a constructive way that allow early preventions of problems and accomplishments of common goals, because they are less likely to focus on self-protection (Edmondson, 2011).

Several empirical studies have noted the importance of psychological safety in groups and in organizations. The concept has been asserted to matter for all types of collaborative groups, such those in the C-suite financial institutions as well as on the frontline of health care units (Edmondson, 2019). In Google's recent longitudinal work, psychological safety was identified as a fundamentally critical factor to how well teams innovate (Bergmann & Schaeppi, 2016). Further, it was found to be particularly important in patient- and healthcare industries, as it has been shown to be essential in reducing employee errors (Nembhard & Edmondson, 2012). There seem to be an agreement from various disciplines that

PREDICTORS OF READINESS TO CHANGE

psychological safety is deeply valuable to the functioning and capabilities of organizations (Edmondson & Lei, 2014; Frazier, Fainshmidt, Klinger, Pezeshkan, & Vracheva, 2017; Newman, Donohue, & Eva, 2017), suggesting that it will be important to enhance readiness to change.

Development of hypotheses

Perceived organizational support and readiness to change

Perceived organizational support has been found to evoke several positive organizational outcomes, such as affective commitment, satisfaction and improved job performance, due to the norm of reciprocity (Rhoades & Eisenberger, 2002). The felt obligation to return a favorable treatment might indicate that POS leads to greater readiness to change, where employees would want to reciprocate the support. Self, Armenakis, and Schraeder (2007) found that POS is associated with positive feelings towards change directives, where employees who perceive organizational support, are more likely to believe that the change is needed, achievable and will benefit them. Additionally, high level of POS is found to work as a buffer to negative effects of organizational change, such as emotional exhaustion (Turgut, Michel, Rothenhöfer, & Sonntag, 2016).

Furthermore, research states that individuals will function poorly in change initiatives when they are not confident about their abilities (Armenakis, Bernerth, Pitts, & Walker, 2007; Armenakis et al., 1993; Oreg et al., 2011). It is emphasized that employees should be motivated to believe that they are capable of implementing the change. If employees believe that taking part in a change process will exceed their coping capabilities, they are less likely to become involved in any action related to the change. Contrarily, employees who believe themselves to be capable of executing the new behaviors required by the change will more likely take part in the process (Bandura, 1977). The feeling of efficacy can be driven by the perceived support from the organization. Thus, employees need to believe that their change efforts will receive support, resources and information from superiors and peers. By perceiving support from the organization, employees might increase their belief that they are able to implement the change, hence foster change readiness (Armenakis & Harris, 2002).

Empirical evidence has shown that POS is associated with readiness to change (Eby et al., 2000; Gigliotti et al., 2019). It is argued that the perception of support from the organization helps employees feel confident that despite the change that is about to happen, they are valued members of the organization (Gigliotti et al., 2019). This could further increase the belief that the organization wants what is best for the employees whilst handling

PREDICTORS OF READINESS TO CHANGE

the change. In other words, employees who perceive the organization as supportive are more likely to believe that the change initiative will not harm them or their interests (Gouldner, 1960), thereby fostering readiness to change. Accordingly, the following hypothesis is proposed:

Hypothesis 1: There is a positive direct effect of perceived organizational support on readiness to change.

Perceived organizational support and team psychological safety

Kahn's (1990) work on psychological safety includes constructs designed to capture the overall supportive work context. This support can come from both peers and the organization itself, and has been linked to influence psychological safety (Frazier et al., 2017). Edmondson (1999, 2004) argues that the supportiveness of organizational context support experienced by a team will foster team psychological safety. This is because access to organizational resources and information are likely to reduce anxiety and defensiveness in a team, such as concerns about unequal distribution of resources or competing for opportunities (Edmondson, 1999, 2004). Furthermore, a supportive organizational context will, according to Carmeli, Brueller, and Dutton (2009) positively influence the formation and expression of true individual identity at work. This kind of support can enhance self-confidence and make it easier for individuals to set free any insecurities and anxieties they might have (Edmondson, 1999; Kahn, 2001; Nembhard & Edmondson, 2006).

In line with the three psychological processes that underlie perceived organizational support (Rhoades & Eisenberger, 2002), Carmeli and Zisu (2009) propose that when employees feel appreciated and believe that their competencies are valued, they are more likely to assert issues and problems without fear that their status will be damaged. Further, they suggest that employees who consider the organization to care about their socio-emotional needs, are more likely to believe that their opinions are welcomed, and thus feel more confident to speak and not feel embarrassed of their actions. At last, when employees believe that the organization recognizes and rewards increased performance, they are likely to feel safe to take risks because these types of actions are appreciated and rewarded.

Increased risk taking is also emphasized by Neves and Eisenberger (2014) who argue that employees who score high on POS trust the organization and colleagues to be understandable to the uncertainties of risk taking, where there is a high chance of failure. Additionally, social learning theory (Bandura, 1977) contributes to describe the proposed effect of POS on psychological safety. It is suggested that by listening, being supportive and

PREDICTORS OF READINESS TO CHANGE

providing clear and consistent directions to subordinates, leaders may work as role models who state that it is safe to take risk and engage in honest communication. Consequently, employees may feel safe to express their opinions (Liu, Hu, Li, Wang, & Lin, 2014; Walumbwa & Schaubroeck, 2009).

In addition to these arguments, there is empirical evidence supporting the relationship where Carmeli and Zisu (2009) found a positive association between perceived organizational support and psychological safety. The findings are consistent with the meta-analyses of Frazier et al. (2017) and Newman et al. (2017). Hence, the following hypothesis is proposed:

Hypothesis 2: There is a positive direct effect of perceived organizational support on team psychological safety.

Team psychological safety and readiness to change

Schein and Bennis (1965) examined the need for psychological safety to help people cope with change. They argue that one of the key effects of psychological safety is to reduce interpersonal risk, which often accompanies uncertainty. Further, psychological safety is supposedly helpful for individuals to face situations which contradict their expectations or hope, without defensiveness (Schein, 1985). Based on Lewin's (1947) change theory's concept of unfreezing, Schein (1996) presented psychological safety as one of three necessary processes to achieve unfreezing, together with disconfirmation of status quo and induction of survival anxiety (see the need for change). Psychological safety is argued to be the most critical condition in this process as it has to balance out the level of threat produced by the disconfirming of status quo. By experiencing psychological safety, employees will accept the information, sense the survival anxiety and become motivated to change (Choi & Ruona, 2016). These arguments further suggest that psychological safety may promote readiness to change.

Edmondson, Bohmer, and Pisano (2001) found that psychological safety is associated with successful implementation of new technology, in their study of innovative hospitals. Taking part in organizational changes (like learning new technology), often involves experimentation, using trial and error to find solutions and seeking help. This activities can lead to interpersonal and career risks to the persons involved. Psychological safety allows employees to take these interpersonal risk, where they can ask questions and speak up about concerns, without fear of personal harm (Edmondson et al., 2001). This is supported by Neves and Eisenberger (2014) who propose that employees with high level of failure-related trust

PREDICTORS OF READINESS TO CHANGE

will feel safe to engage in potential risks to benefit the organization, such as change initiatives, without fear of negative consequences.

The proposal of psychological safety's effect on readiness to change may draw from development psychology. It is suggested that children with secure bonds with their parents are more likely to explore new situations sooner than children with less secure bonds (Ainsworth & Bell, 1974; in West, 1990). This implies that individuals who feel safe to take interpersonal risks will be more comfortable with unfamiliar and uncertain settings. Assuming that this also holds for a work relation, a climate of team psychological safety will make the employees feel more comfortable in situations where organizational changes occur.

In a research of financial services, Cataldo et al. (2009) found that psychological safety is positively associated with organizational change. They argue that employees must feel that their economical and psychological status are protected throughout the change process for it to be successful. Rafferty et al. (2012) proposes that psychological safety is associated with readiness to change where groups characterized by high levels of trust and respect will foster open discussion about the change initiatives. These discussions will in turn, result in beliefs that the change is needed, in addition to increase the employees' positive emotions associated with the change initiative. Based on the aforementioned findings, one can assume that team psychological safety affects employees' readiness to change. Hence, the following is hypothesized:

Hypothesis 3: There is a positive direct effect of team psychological safety on readiness to change.

Perceived organizational support with team psychological safety and readiness to change

The relationship between perceived organizational support and readiness to change has been found to be associated (Eby et al., 2000; Gigliotti et al., 2019), along with the relationship between team psychological safety and readiness to change (Cataldo et al., 2009; Rafferty et al., 2012). These previous findings postulate the suggestion that perceived organizational support may have an indirect effect on readiness to change through psychological safety. From the literature research carried out for this thesis, no studies investigating this indirect effect were found.

Research proposes team psychological safety as an intervening variable between supportive context and learning outcomes (Edmondson, 1999, 2004). Drawing on the line of earlier research, the current study argues that the relationship between perceived

PREDICTORS OF READINESS TO CHANGE

organizational support and readiness to change can be partially explained through team psychological safety. This is suggested because the level of psychological safety can be seen as a mechanism that promotes individuals to engage in change activities and make them feel comfortable with exposing themselves for uncertainty. During organizational change, employees often feel vulnerable to the actions of the organization, in which the employee has no control. In these situations, employees may develop fear of personal consequences of failure, leading to less employee risk taking (Pfeffer & Sutton Robert, 2001).

Further, change situations often include engaging in activities with a high probability of failure, such as trying new procedures, accepting difficult tasks and being honest about mistakes. Hence, it is convenient to suggest that team psychological safety foster this kind of environment, where it is fully accepted to make mistakes. Neves and Eisenberger (2014) argue that high levels of POS likely lead to the belief that employees' skills and talents are to be developed, and whose mistakes should be dealt with forgivingly, which is in line with the concept of team psychological safety. Furthermore, they found that POS is related to greater comfort risk taking, suggesting that POS is related to psychological safety when individuals are confronted with uncertainty, such as during organizational changes (Gigliotti et al., 2019).

Moreover, it's argued that employees who perceive support from the organization are more likely to believe that the organization's change actions are to the employees' best interest (Gouldner, 1960). When employees can feel safe in the organization, they are more likely to develop expectations that their status and image will not be hurt by speaking up and cooperate with the change initiative (Carmeli & Zisu, 2009). For these reasons, this study opposes that psychological safety is a key intermediate mechanism that intervenes in the relationship between POS and readiness to change. Thus, the following is predicted:

Hypothesis 4: There is a positive indirect effect of perceived organizational support on readiness to change through team psychological safety.

Aim of this study

The aim of this study is to investigate how perceived organizational support and team psychological safety affect readiness to change at the representative organizations. The study uses a mixed method design grounded in the survey data, where the four hypotheses are analyzed using structural equation modelling (SEM). Qualitative data from semi-structured interviews provides additional support regarding respondents' construct comprehension, their personal opinion regarding the constructs' strengths and weaknesses and examples of the

PREDICTORS OF READINESS TO CHANGE

constructs in real life work related events. The purpose of the qualitative data is to supplement the quantitative findings with a richer data sample and validation. An insight in the employees' understanding of the constructs will further provide a deeper knowledge about the psychological phenomena.

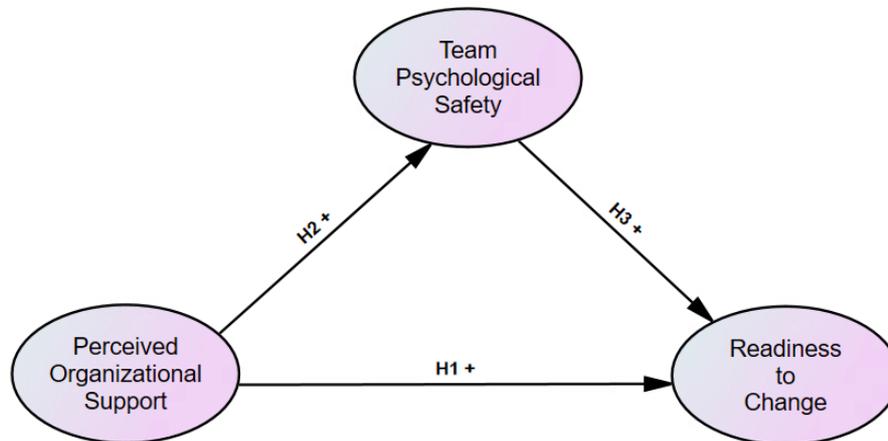


Figure 1. Graphical representation of the hypothesized relations among the variables.

Note. Hypothesis H4 (POS → PSY → CHA) is not displayed in the figure.

Method

The project

This study is conducted in collaboration with both a medium-sized health care center for somatic and physical rehabilitation, and a private claims department within a large-scale insurance company in Norway. This project is entirely constructed by a research group at The University of Oslo: two master's students (including the author) and the supervisor. External organizations were contacted with an intention to collect both quantitative and qualitative samples, including a survey and interviews. The two master's students were responsible for establishing relations with the organizations and recruit participants proactively. Further, the students collaborated on the development of a questionnaire and interview guide, applied in two individual master theses investigating different variables. The current variables used in this thesis were identified after a literature review, as an extension to earlier research.

Whereas the questionnaire survey included six measures, the current study will only apply three of the scales, presented in the following section. Furthermore, the interview guide consisted of questions regarding five constructs, while the this study will present three of the related constructs. This thesis will focus on perceived organizational support, team psychological safety and readiness to change.

PREDICTORS OF READINESS TO CHANGE

Mixed method

The current study undertakes a mixed method approach using a combination of a questionnaire survey and interviews. Close-ended survey is a quantitative method which have the benefit of being easy to collect, administer and interpret, as well as it is time-efficient. In regards to reliability and validity, quantitative instruments benefit from being used in numerous well-known statistical studies. However, these questionnaires have some limitations. Studies have shown that this kind of measurement has failed to account for important factors experienced by the employees (Keenan & Newton, 1985; Mazzola, Schonfeld, & Spector, 2011). Further, the respondent's answers are confined within the survey's response format (Cronbach, 1946). By asking a participant to relate to words and items that they normally would not use, the results may not reflect the actual experience of the participant. Open-ended interviews, on the other hand, do not restrict participants' answers and the interviewees are free to use their own words when describing their work environment. Qualitative data is more likely to reflect the person's actual experiences, and may identify essential work factors that are not covered in the questionnaire survey (Mazzola et al., 2011). Nevertheless, interviews and analysis may be problematic in terms of reliability and validity.

Mixed method is an approach to research that combines the use of both quantitative and qualitative data in a single study (Creswell, Plano Clark, Gutmann, & Hanson, 2003). The results from mixed data collections may complement each other and can reduce weakness of using either in isolation. Lund (2012) argues that mixed method research provides more valid inferences. Convergent results could increase the validity of each of the corresponding conclusions, while divergent or contradictory findings could lead to new theoretical insight, extra reflection and further research.

Data collection

The data was collected in collaboration with employees working at a rehabilitation center, and a department within an insurance company in Eastern Norway. An e-mail was sent out from the HR-department to 86 employees at the rehabilitation center and 154 employees at the insurance company with a web link inviting them to answer the questionnaire. The survey was completed electronically through UiO's software "Nettskjema". Additionally, 12 employees from both companies were invited to take part in a semi structured interview. The total period of data collection was six week between December 2019 and January 2020.

PREDICTORS OF READINESS TO CHANGE

Quantitative survey data

Sample

The quantitative sample consists of 121 respondents from two organizations of which 55 respondents are from the health care center and 66 are from the insurance company. There were 99 respondents who completed the whole questionnaire, while 23 did not fully complete. 22 of these 23 completed the questionnaire to such a degree it was possible to include their answers in further analysis, while the remaining one was discarded. This sums up to 121 respondents, indicating a total response rate of 50.4 %. 44.6% of these respondents worked at the health care center, while 55.4% worked at the insurance company. The sample consists of 76.9% women and 21.5 % men (two respondents (1.7%) did not provide gender). Furthermore, there were 10.7% who had managerial responsibilities, and almost half of the respondents had been working with the organization for over 10 years (48.8 %).

Measures

This study applies three different scales aimed at measuring the constructs of interest: perceived organizational support, readiness to change and team psychological safety. A table of the measures and its items in Norwegian are displayed in Appendix 1. Respondents indicated their extent of agreement with each statement using a 5-point Likert scale ranging from definitely false (1) to definitely true (5). The middle value (3) was “neither true nor false”, which allowed for a neutral response. All negatively worded items have been reversed coded for the analyses. The scales’ degree of internal consistency was examined by calculating their respective Chronbach’s alpha, where a value of a $\alpha \geq .70$ indicates acceptable reliability (Hair, Black, Babin, & Anderson, 2014).

Perceived organizational support

A Norwegian version of “Survey of Perceived Organizational Support” (POS) (Eisenberger et al., 1997; Lynch, Eisenberger, & Armeli, 1999) is used to measure perceived organizational support. The scale has been translated to Norwegian by the Work and Organizational research group at the University of Oslo. The scale consist of 8 items and is designed to assess the extent to which employees perceive that the organization values their contributions and cares about their well-being (Eisenberger et al., 1986). Examples of items are “*My organization strongly considers my goals and values*” and “*My organization really cares about my well-being*”. Cronbach’s alpha was estimated to be $\alpha=.86$ displaying satisfactory reliability according to the recommended level of .70 (Hair et al., 2014).

PREDICTORS OF READINESS TO CHANGE

Readiness to change

Readiness to change is measured by a Norwegian version of “Scale for individual readiness to organizational change” developed by Vakola (2014), based on existing literature (Holt et al., 2007). The scale has been translated and validated by Koritzinsky (2015) at the University of Oslo. The items are designed to measure the degree to which employees consider themselves to be open to changes, and whether the changes would be for the better. The instrument originally consists of six items, but a seventh item was added to examine self-efficacy to a greater degree. The newly added item is *“I am confident that I will be able to quickly adapt to changes in my unit”*. Another statement is *“When changes occur in my company, I believe that I am ready to cope with them”*. The scale displayed an acceptable Cronbach’s alpha value of $\alpha=.76$ (Hair et al., 2014).

Team psychological safety

The measure of team psychological safety is based on a 7-item measure, introduced by Edmondson (1999). This measure includes items that capture shared perception among the team members as to whether they believe that other members will not reject them for being themselves, team members respecting each other and have positive intentions to one another. The scale is translated to Norwegian by this project’s two responsible students at the University of Oslo. Two example items are *“If you make a mistake on this team, it is often held against you”* (reversed) and *“Members of this team are able to bring up problems and tough issues”*. Cronbach’s alpha for this scale was $\alpha=.80$, exceeding the threshold of .70, demonstrating satisfactory reliability (Hair et al., 2014).

Analysis

Preliminary analysis

Data screening, preliminary and descriptive analysis were conducted with the software SPSS 26.0. Data screening and preliminary analysis are further elaborated below, while the descriptive analysis is presented in the results.

The data included ten variables with missing values, all less than 5 percent missing, which were replaced with the median for further analysis. One participant was deleted due to having more than 50 percent of the responses missing. The data was evaluated for normality by examining the degree of skewness and kurtosis. The skewness values ranged from -2.121 to -.0399, and the kurtosis values ranged from -1.071 to 4.126. This is in accordance with Kline’s (2016) recommendation that the indicators should not exceed the guiding values of >3.0 for severe skewness and >10.0 for problematic kurtosis. Additionally, linearity was

PREDICTORS OF READINESS TO CHANGE

investigated by inspecting the scatter plot between the sum scores of each construct, and collinearity was investigated by examining the Variance Inflation Factor values (Kline, 2016). Both were to be found satisfactory. The data was therefore concluded to be suitable for further analyses.

In some studies when using self-composed or relatively new measures, it can be useful to do an exploratory factor analysis, in addition to the confirmatory factor analysis (CFA). However, because the current scales are obtained from well tested instruments, this study relies on the CFA.

Structural Equation Modelling

The hypotheses were investigated using structural equation modelling (SEM). SEM is a statistic analysis technique that allows for testing of multiple relationships between latent variables simultaneously. It can be thought of as a combination of different statistical techniques, such as factor analysis and multiple regression analysis (Hair et al., 2014). By using SEM, it is possible to achieve better estimates of the effect sizes between constructs, because it controls for the unique variance in indicators not attributable to their common latent factor (Hair et al., 2014; Kline, 2016). The SEM-analysis was conducted by using the software AMOS 26.0 with maximum likelihood and bootstrapping of the estimates to obtain the 95% confidence interval of the indirect effects.

Bootstrapping is a nonparametric resampling procedure, frequently used to test mediation that does not impose the assumption of a normal distribution in the sample (Hair et al., 2014). The procedure includes repeatedly sampling from the data set, and estimates the indirect effect in each resampled data set. When repeating this process thousands of times, it produces an approximation of the distribution which is used to make confidence intervals for the effects. This method is preferred because it has higher power and maintains more control over the Type 1 error rate, than the Sobel or casual test approach (Preacher & Hayes, 2008).

Conducting a SEM-analysis often includes the theorized model to be divided into a measurement model and a structural model. The first step is to specify the measurement model which ascribes the relationship between the different indicators and their respective latent factors, known as the CFA. If the measurement model fits the observed data well, one continues to specify the structural model which is to determine the relationship between the latent factors (the hypotheses) (Kline, 2016).

To evaluate how well the theorized model represents the observed data, several estimates produced by the SEM-analysis are examined. The overall model, or the global fit, is inspected by several goodness-of-fit (GOF) indices, which indicate how well the specified

PREDICTORS OF READINESS TO CHANGE

model is able to reproduce the observed covariance matrix among the items (Hair et al., 2014; Kline, 2016). In this thesis, the following indices will be applied: Chi-square, Comparative Fit Index (CFI), Root Mean Square Error of Approximation (RMSEA) and the Standardized Root Mean Residual (SRMR), as recommended by Kline (2016).

Chi-square (χ^2) is the most fundamental absolute fit index. It assesses the absolute fit by measuring whether the specified model is significantly different from the observed covariance matrices. A non-significant chi-square ($p > .05$) indicates good fit.

The CFI examines how well the specified model fits the observed data compared to a null model where all the indicators are uncorrelated. The index ranges between 0 and 1, with higher values indicating a better fit. According to the model specific guidelines of Hair et al. (2014), the CFI value should be above .95 for a model with $N < 250$ and numbers of indicators $12 < m < 30$, to indicate good fit.

Both the RMSEA and the SRMR are known as badness-of-fit statistics, where values close to zero indicate good absolute fit. RMSEA represents how well a model fits a population, not just a sample used for estimation. It explicitly tries to correct for both model complexity and sample size by including each of them in its calculation (Hair et al., 2014). The SRMR uses the residuals (the difference between the estimated and observed covariance) to compute the average standardized residuals as a measure of how well the overall model fits the data. Together with the CFI value above .95, the RMSEA should be less than .08 and the SRMR below .08 to indicate good fit (Hair et al., 2014).

In addition to the global fit, the local fit should be investigated to see if there are any particular parts of the model that should be adjusted. It is important to examine the local fit as well, because the global fit indices do not identify whether some parts of the model has poor fit and need to be modified. To discover local poor-fit, the residuals, modification indices, factor loading and regression coefficients are investigated. The standardized covariance residuals form a useful statistic as they make it possible to identify if specific indicators are problematic. Standardized residuals less than $|2.5|$ (below -2.5 or above 2.5) do not suggest problems. Less than 5% of the residuals should fall outside that range. Conversely, residuals greater than $|4.0|$ raise serious concerns and the items associated may be considered dropped (Hair et al., 2014; Kline, 2016).

Additionally, the estimated parameters of the model need to be inspected. The factor loadings should be statistically significant, be in the predicted direction and be above .50, ideally .70 or higher. Based on an overall evaluation of global and local fit, the model is either retained, modified or rejected (Hair et al., 2014; Kline, 2016).

Reliability and Validity

In a SEM-analysis, internal consistency is estimated by calculating the scales' composite reliability (CR). CR is the ratio of explained variance over total variance where a CR value above .70 suggests acceptable reliability (Hair et al., 2014). High construct reliability indicates that all the measures consistently represent the same latent construct.

Validity describes the extent to which the scores measure what they are intended to measure (Hair et al., 2014). Most variations of validity measures address the construct validity. Two commonly assessed kinds of construct validity are convergent and discriminant validity. Items aimed to measure the same construct should share a substantial amount of variance, which is known as convergent validity. Further, constructs should be distinct from each other, which is known as discriminant validity (Kline, 2016). In essence, the items should have a high loading on one factor, and the constructs should not be highly correlated. In both convergent and discriminant validity, the scores are evaluated against themselves, instead of by external criteria. Composite reliability can therefore also be used to measure the convergent validity of a scale (Hair et al., 2014).

Discriminant validity can be assessed by examining the factor correlation matrix after the extraction. A factor correlation that exceeds .80 is often used as the criterion to describe insufficient discriminant validity (Brown, 2015). Furthermore, the chi-square difference test can also be used to determine discriminant validity between constructs by pairwise comparing whether loading all items on one construct produces a model with better fit rather than loading the items on their separate constructs (Hair et al., 2014). Discriminant validity is supported if the model where the items load on their separate construct fits significantly better than the model where they load on either one or two factors. In contrast, no significant difference between the model, or that the one or two-factors model provide significant better fit, indicates a discriminant validity problem (Hair et al., 2014).

Sample Size

Determination of sample size requirements for SEM-analyses is a challenge often faced by researchers. Various rules-of-thumb have been recommended, including a minimal sample size of 100 or 200 (e.g. Boomsma, 1985), or 5 to 10 observations per estimated parameter (e.g. Bentler & Chou, 1987). Sample size has been proven to be sensitive to the degree of normality, missing data, model complexity (i.e., number of indicators, factors and parameters estimated) and path coefficients (Hair et al., 2014; Wolf, Harrington, Clark, & Miller, 2013). A sample size of N=121, which is the case in this study, is regarded as an adequately estimate for SEM models containing five or fewer constructs, each with more than

PREDICTORS OF READINESS TO CHANGE

three items (observed variables), and with high item communalities (.6 or higher) (Hair et al., 2014; Wolf et al., 2013). However, a sample size of N=121 meets only the minimum requirement, which needs to be taken into consideration when interpreting the results.

Qualitative interview data

Sample

The qualitative sample consists of 12 participants. All interview participants had completed the questionnaire in prior to the interview. Respondents were asked to participate voluntarily in the interview. There were held 12 in-depth and open tape-recorded interviews. 10 participants worked at the health care center and two participants worked at the insurance company. All participants received a letter of information with the interview questions prior to the interview (Appendix 2).

Interviews

Two pilot interviews were conducted to test the quality of the interview guide and for identifying protentional researcher biases (Chenail, 2011). The pilot interviews were performed as envisioned and no further changes were made.

The interviews were held in offices or meeting rooms at the participants' locations. All interviews were conducted in Norwegian by either one of the two responsible master's students of the project at UiO to prevent response variation due to interview settings. The semi-structured interviews were held in accordance with the PEACE model, which is a framework for cognitive interviewing and refers to Planning and Preparation, Engage and Explain, Account, Closure and Evaluation (Clarke & Milne, 2001).

The interviews consisted of twenty open-ended semi structured questions regarding psychological safety, organizational support, readiness to change, employee participation and leader inclusiveness. Examples of the questions are:

- I. Please give your account of the concept psychological safety*
- II. Please give your account on the strengths in psychological safety*
- III. Please give your account on the weaknesses in psychological safety*
- IV. Please provide examples of psychological safety from your workplace*

See Appendix 2 for a complete interview guide. In addition to the interview questions, follow-up questions were asked to make the interviewee clarify or elaborate on previously

PREDICTORS OF READINESS TO CHANGE

mentioned topics. The interviewer did not introduce new topics in the follow-up questions, as this might bias the data. There was no time limit on the interviews, so they were concluded when the participants had nothing further to add.

The interviews were recorded on tape and were transcribed verbatim by the two responsible master's students. Thus including everything that was said during the interview, excluding non-verbal communication such as thinking pauses, gestures and facial expressions. Repetitions, and sounds such as "ehm" and "mhm" were not included. Local dialects were translated into Norwegian Bokmål.

Analysis

Thematic Analysis

A deductive thematic analysis was chosen as the method of analysis because it facilitates the interpretation of identifiable themes and patterns. The stepwise approach by Braun and Clarke (2006) were used as a guideline while conducting the thematic analysis.

Phase 1 includes familiarizing the data. The data analysis is facilitated by an in-depth knowledge of, and engagement with the data set. Familiarization was achieved through the process of transcription and reading through the transcribed data.

Phase 2 concerns generating initial codes, a systematic process of identifying and labelling relevant features of the data, and organizing the data into meaningful groups. Most of the data extract was open-coded into one or several potential patterns it fit into. Participants' construct comprehension were coded into supportive or non-supportive. Further, the data was coded into strengths, weaknesses and examples of their experiences.

Phase 3 includes searching for themes. This phase was achieved by sorting the codes and extracts in clusters to create a plausible mapping of key patterns in the data.

Phase 4 involves reviewing the themes and the refinement of those themes, creating a meaningful pattern that reflects the data. This phase was completed by re-reading the codes and extracts for each theme to search for coherent patterns within the themes, grouping similar themes together and removing themes that were too distinct.

Phase 5 includes defining and naming the themes. By reading through the data extracts within each theme, identifying the essence of what each theme is about, a unique name was given. The names ensure conceptual clarity of each theme (Braun & Clarke, 2006).

Ethical considerations

The project is approved by the Norwegian Social Science Data Service (NSD – Norsk Samfunnsvitenskapelige Datatjeneste, case number 98456). The e-mail with invitation to the survey contained information about: the purpose of the study, the storage of the data, information about voluntary participation, that the reporting of the results will be at collective levels, and that their individual responses will not be disclosed.

All the interviewees were informed about the procedure and the purpose behind the study in advance. The participation was based on voluntary informed consents where participants consented verbally on tape. It was possible to withdraw any time during the interview without further notice or reason for withdrawing. The interviews were recorded, which the participants agreed to in beforehand. No benefits or reasonable expectation of harm or negative effects were given based on the participation in this study.

Results

Results of the descriptive and preliminary analysis

Table 1 presents the means, standard deviations, Cronbach’s alpha and inter-correlations between the sum scores of every construct. The constructs demonstrate moderate correlations and a mean above the response scale center (3), indicating a positive degree of organizational support, psychological safety and readiness to change.

Table 1

Mean, standard deviation, Cronbach’s alpha and zero-order correlations for all constructs

Construct	Mean	SD	α	1.	2.	3.
1. Organizational support	4.16	.63	.86	1		
2. Psychological safety	4.05	.69	.80	.35**	1	
3. Readiness to change	4.11	.52	.76	.30**	.30**	1

** Correlation is significant at the 0.01 level (2-tailed).

Hypothesis testing – Structural Equation Modelling

Measurement models

The first step of the SEM-analysis is to conduct a confirmatory factor analysis (CFA) to establish a measurement model. Separate CFAs of the constructs were conducted to examine each measurement model and to attain a more clear understanding of potential modifications. The CFAs of each construct are displayed in table 2. To improve the

PREDICTORS OF READINESS TO CHANGE

measurement model, several modifications were made step by step, to check for improvements in the model fit statistics.

Table 2

Measurement model Goodness of fit statistics

	Model	χ^2	df	χ^2/df	CFI	RMSEA [90% CI]	SRMS	Comments
POS	1	85.533**	20	4.277	.841	.165 [.130, .202]	.081	<i>All items included.</i>
	2	17.087	13	1.314	.989	.051 [.000, .110]	.035	<i>Item POS_7 excluded. POS_5 and POS_6 covary.</i>
CHA	1	28.009*	14	2.001	.938	.091 [.020, .140]	.066	<i>All items included.</i>
	2	12.031	9	1.337	.986	.053 [.000, .123]	.035	<i>Item CHA_4 excluded.</i>
PSY	1	15.747	14	1.125	.991	.032 [.000, .097]	.041	<i>All items included.</i>

** Chi-square significant at the 0.01 level.

* Chi-square significant at the 0.05 level.

The initial measurement model for perceived organizational support did not meet the criteria for a good model fit, where the chi-square was statistically significant ($p < .001$), the CFI value was too low (.841) and the RMSEA and SRMS values (.165 and .081 respectively) were too high. The CFA revealed that item POS_7 should be excluded due to low factor loading. Further, after examining the modifications indices, error terms of two items were allowed to covary. As these items have similarly worded phrases, it is possible that they share some unique variance. The error terms of POS_5 (My organization is willing to help me when I need a special favor) and POS_6 (Help is available from my organization when I have a problem) were therefore allowed to covary.

Furthermore, global fit indices suggested that the initial measurement model for readiness to change did not fit the data well. The chi-square was significant ($p < .05$), and the

PREDICTORS OF READINESS TO CHANGE

CFI (.938) and RMSEA (.091) deviated substantially from recommended cut-off values. SRMS value (.066) was acceptable. The CFA revealed that item CHA_4 should be excluded from the model due to low factor loading. CHA_4 (I think I am more prepared to accept changes than other employees at my unit) is conceptually distinct from the other items in their respective components, as the respondent has to compare him/herself to other employees. Item CHA_2 was loading weakly (.30), but was retained. The global fit indices were adequate when item CHA_2 was included, indicating a good model fit.

The measurement model for team psychological safety indicated good fit. The chi-square was not significant ($p > .05$), and the values of CFI (.991), RMSEA (.032) and SRMS (.041) were satisfactory. No further modifications were done.

Finally, a pooled CFA was conducted to examine the measurement model. As expected, the initial CFA with all the items included (Model 1) did not meet the criteria for a good model fit, as displayed in Table 3. The chi-square was statistically significant ($p < .001$) and values of CFI (.885) and SRMS (.081) were not satisfactory. The RMSEA value (.065) was acceptable. A path diagram of the initial measurement model can be seen in Appendix 3.

Table 3

Measurement model Goodness of Fit statistics

Model	χ^2	df	χ^2/df	CFI	RMSEA	SRMS	Comments
					[90% CI]		
1	309.818**	206	1.504	.885	.065 [.049, .079]	.081	<i>All items included.</i>
2	192.009	166	1.157	.970	.036 [.000, .057]	.067	<i>Items POS_7 and CHA_4 excluded. POS_5 and POS_6 covary.</i>

** Chi-square significant at the 0.01 level.

Table 3 further displays the global fit indices for the model after the modifications (Model 2). The chi-square is non-significant and the values of CFI (.970), RMSEA (.036) and SRMR (.067) indicate good fit. A path diagram of the modified measurement model (Model 2) and the models' respective communalities can be seen in Appendix 4. It is possible to continue modifying the model to get an even better overall fit. However as a general rule, if the model fits well, it is recommended to stop modifying it as any further modifications might

PREDICTORS OF READINESS TO CHANGE

just be fitting the model to the specific sample rather than representing theoretical assumptions (MacCallum, Roznowski, & Necowitz, 1992).

Reliability and validity

Composite reliability (CR) was above .70 for all constructs: Perceived organizational support CR= .78, Team psychological safety CR= .80 and Readiness to change CR= .80. Thus, reliability and convergent validity were satisfactory for all scales (Hair et al., 2014). The correlations between factors did not exceed .80 (ranging from .41- .45) which supports discriminant validity between all constructs (Brown, 2015). Additionally, each pair of constructs were tested using a Chi-square significant test, measuring whether the items fit better loading on one construct than on their separate construct. The three-factor model (keeping the constructs separated) displayed significantly better fit than the two-factor models and one-factor model (merging items to one and two factors), indicating adequate discriminant validity between them (Brown, 2015).

Structural model

After demonstrating acceptable fit for the measurement model, the next step of the SEM-analysis is to specify the structural model. That is, to introduce the paths among the latent variables as specified in the hypotheses. The complete model can be seen in Figure 2. The estimates between the latent variables are interpreted as standardized regression coefficients (β). The estimates between the items and their factor is the factor loading, whereas the estimates displayed on the double-headed arrows are correlations. The structural model produced the same goodness-of-fit-indices as the modified measurement model (Model 2), as presented in Table 4. Thus, the overall model fits the observed data well and was therefore retained.

Table 4

Structural model Goodness of Fit statistic

Model	χ^2	df	χ^2/df	CFI	RMSEA		Comments
					[90% CI]	SRMS	
2	192.009	166	1.157	.970	.036 [.000, 0.057]	.067	<i>Items POS_7 and CHA_4 excluded. POS_5 and POS_6 covary.</i>

PREDICTORS OF READINESS TO CHANGE

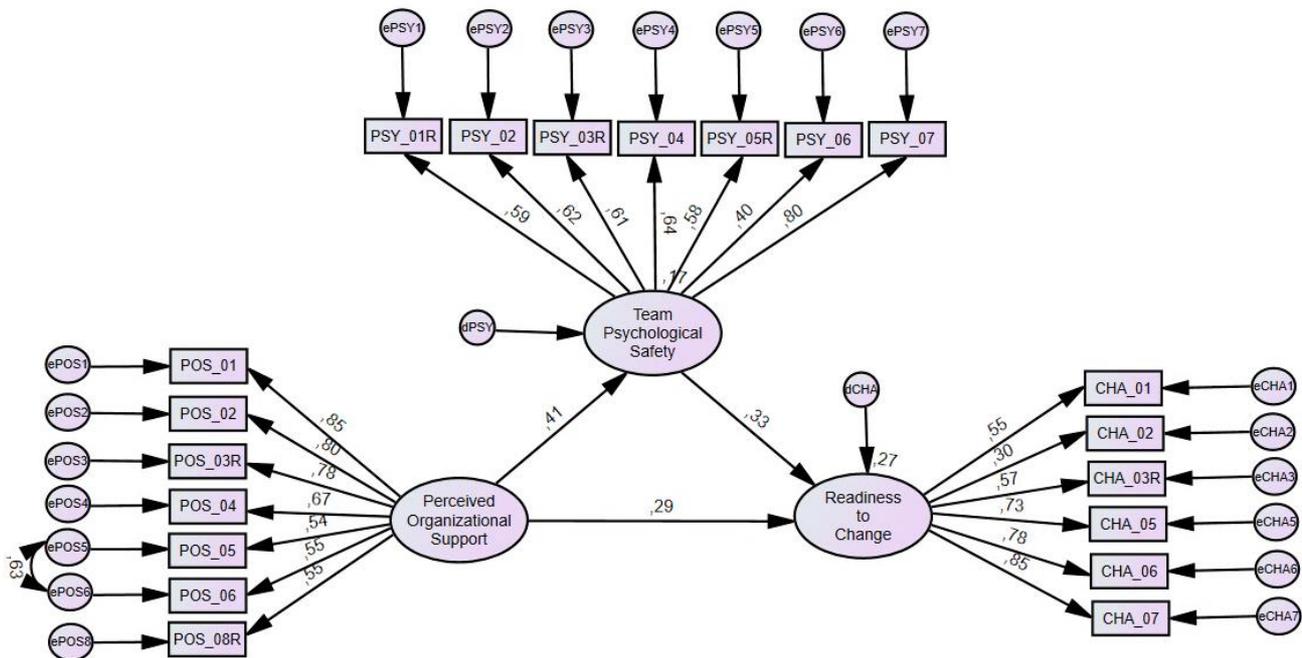


Figure 2. Structural model path diagram

Note: Estimation method: Maximum Likelihood. Displaying standardized coefficients. Circles represents latent variables (factors), while the rectangles represents observed variables (indicators). Circles with e*** denotes error variance, and the circles with d*** denotes disturbance terms.

Table 5 presents the direct, indirect and total effects, as well as explained variance between the latent variables. All the effects were found to be significant ($p < .05$) and in the expected direction, thus all the hypotheses were supported. There was a significant positive direct effect of perceived organizational support on both readiness to change (H1: $B=0.190$, 95% CI [0.029, 0.476], $\beta=.286$) and team psychological safety (H2: $B=0.278$, 95% CI [0.111, 0.602], $\beta=.407$). Further, team psychological safety had a significant positive direct effect on readiness to change (H3: $B=0.323$, 95% CI [0.085, 0.677], $\beta=.332$). Additionally, there was a significant positive indirect effect of perceived organizational support on readiness to change, through team psychological safety (H4: $B=0.090$, 95% CI [0.026, 0.249], $\beta=.135$). In total, the model explained 27% of the variance in readiness to change, whereas perceived organizational support explained 17% of the variance in psychological safety. The proportion of the total effect POS has on CHA, that is explained by the indirect effect is 32%. ($0.09/0.280 = .0321 = 32.1\%$) (Ditlevsen, Christensen, Lynch, Damsgaard, & Keiding, 2005).

PREDICTORS OF READINESS TO CHANGE

Table 5

Estimates of direct, indirect and total effects between latent variables

Parameters	Unstandardized	S.E	95% CI	Standardized
Direct effects:				
POS → CHA	0.190*	0.110	[0.029, 0.476]	0.286
POS → PSY	0.278**	0.122	[0.111, 0.602]	0.407
PSY → CHA	0.323*	0.155	[0.085, 0.677]	0.332
Indirect effects				
POS → PSY → CHA	0.090*	0.053	[0.026, 0.249]	0.135
Total effects				
POS on CHA	0.280**	0.120	[0.111, 0.587]	0.421

Note: POS=Perceived organizational support, PSY=Psychological safety, CHA=Readiness to change, CI=Confidence interval.

Confidence intervals and standard errors are based on non-parametric bootstrapping. Number of bootstrap samples = 10000.

* Coefficient is significant at the 0.05 level.

** Coefficient is significant at the 0.01 level.

Thematic analysis

A deductive thematic analysis approach informed by Braun and Clarke (2006) was applied to semi-structured, in-depth interviews of twelve participants from both the collaborative organizations. First, the data was divided into three main categories based on the interviews: construct comprehension, strengths and weaknesses and personal experiences. Further, a list of themes was compiled within each category.

Construct comprehension

Table 6 presents the participants' constructs comprehension. They were asked to provide their understanding of each concept. Statements were first divided into supportive and unsupportive statements, and then further into themes catching their essence.

PREDICTORS OF READINESS TO CHANGE

Table 6

Respondents' construct comprehension

Construct	Supportive statements (mentioned by number of respondents)	Unsupportive statements (mentioned by number of respondents)
Perceived organizational support	The organization facilitates (4)	Organizational structure (4)
	The leader facilitates (3)	Being loyal (3)
	Support from the leader (3)	Interdependence (2)
	Support development (3)	
	<i>In total (13)</i>	<i>In total (9)</i>
Team psychological safety	Express your opinion (11)	Self-confident (1)
	Not get rejected (8)	Predictability (2)
	Safe work environment (6)	
	Colleagues contribute to safety (4)	
	Show your weaknesses (2)	
	<i>In total (31)</i>	<i>In total (3)</i>
Readiness to change	Individual is willing (8)	
	Change mindset (5)	
	The need for change (4)	
	Challenge yourself (3)	
	Organization is capable (2)	
	Organization facilitate (1)	
	<i>In total (23)</i>	-

Note. Table displaying number of supportive/unsupportive statements mentioned. There was a total of 12 respondents participating in the interview.

Perceived organizational support. The respondents showed a nuanced understanding of POS, which may imply some challenges with the construct comprehension. There were several respondents providing supportive statements, where they communicated that POS occurs when the organization and leaders facilitate and support the employees. Furthermore, the informants mentioned support from the leader as a characteristic of POS, as they may see the leaders acting on behalf of the organization. These statements are in line with prior literature, and are expressed like: *“I think it is the support from the management (...) from the organization somehow, from leaders at different levels.”* However, there were nine unsupportive statements, where informants mentioned how the organization is structured and that employees should support the organization by being loyal and committed.

Team Psychological safety. The respondent's comprehension of team psychological safety was adequate and consistent with earlier research. There was a total of 31 supportive statements, incorporating several relevant elements, while providing few unsupportive statements. Many informants emphasized the possibility to express their opinion when

PREDICTORS OF READINESS TO CHANGE

explaining their understanding of the concept: “*And that there is room for being one self, and to say that, it is safe to express your opinions and views, and feel that you could talk about things.*” Additionally, several informants mentioned absence of fear of rejections: “*...without being afraid of being disliked for that reason.*”

Readiness to change. The respondents showed good comprehension of readiness to change, where all 20 statements supported existing research. Several respondents talked about their willingness to support the change initiative as a central aspect of the concept: “*I think to be willing to try new things as the world around us is changing [...] And the strengths of the willingness mean that you are positive to try them.*” Also, changing your mindset was mentioned several times, where it was emphasized that you have to change your way of thinking in line with new research and methods arising. The vast majority focused on the individual approach to readiness to change, with only a few respondents mentioning the organization’s ability to change.

Perceived strengths and weaknesses

The respondents were asked to give their account on the strengths and weaknesses of each construct to further provide insight regarding construct comprehension. Table 7 presents the respondent’s opinions, where they provided various beneficial aspects of each construct. As the constructs are highly positively loaded, the majority of the weaknesses included “too much” of the phenomena, leading to less professionalism and an ineffective work environment.

Table 7

Respondents’ perceived strengths and weaknesses of constructs

Construct	Strengths (mentioned by number of respondents)	Weaknesses (mentioned by number of respondents)
Perceived organizational support	Better work environment (4) Support from the leader (3) Support functions (3) Development/change (3)	Too much support (4) Lack of competence (3)
Team psychological safety	Multiple views (7) Learning and development (5) Enhanced participation (4) Supportive environment (3)	Too casual (6) Informal communication (3) Too safe/comfortable (3)
Readiness to change	Better solutions (5) Knowledge development (4) Innovation (4)	Too much willingness (5) Too fast (5) Cursory (3)

Note. Table displaying perception of strengths and weaknesses of each construct. There was a total of 12 respondents participating in the interview. Themes mentioned by less than three respondents are not included.

PREDICTORS OF READINESS TO CHANGE

Perceived organizational support. Some of the participants mentioned that POS facilitates for an environment where employees appreciate the work atmosphere: *“I think we will be more efficient, and have a better flow during the day.”* Furthermore, support from the leader and other support functions were valued by the employees. By having a supportive leader, employees could ask questions or talk about problems. Moreover, a few of the respondents asserted development and change as a strength of POS. Regarding weaknesses of POS, too much support could be problematic, due to inhabitation of the employees. This was expressed like: *“you can get lazy if you just receive and receive and somehow, don’t have to work so hard for it. It will be too much facilitation.”*

Team psychological safety. A vast majority of the respondents pointed out that multiple views and opinions were advantageous when having team psychological safety. Learning and development was also emphasized. When PSY exists in a team, members are not afraid to express their opinions or ask questions. This could further lead to more participation from employees: *“I think that many different sides can emerge. It will be a wider range of opinion and views and I think that it will make the employees do their best.”* Too much team psychological safety can lead to an excessive relaxed relationship, which respondents saw a weakness. Employees mentioned that they could get too personal and comfortable with each other, and the communication would be too informal: *“But if it gets too personally, you can easier loose the professionalism.”*

Readiness to change. Several respondents saw the possibility of better solutions as a strength of readiness to change. This could be a change of rehabilitation method, or a new method to work more efficient. Also, developing knowledge and innovation was emphasized by some of the participants: *“To join the rest of the society, that is always a strength. To be able to evaluate how things are going and to be open for the newest research.”* However, too much willingness was seen as a weakness. It was mentioned that employees who constantly believe changes are needed, could result in cursory and uncritical change initiatives: *“If things happen very fast, and let’s say you forget legal frameworks. You can forget why a routine you had was important in regards to quality.”*

Work experience

The participants were asked to provide examples of real life work experiences to each constructs, to elaborate on their understanding. Table 8 presents the participant’s examples on the constructs from both the represented organizations. In general, the respondents agree that

PREDICTORS OF READINESS TO CHANGE

there exist organizational support, team psychological safety and readiness to change at their work place.

Table 8

Respondents' examples of experience of each construct

Construct	Respondents' experience of constructs (mentioned by number of participants)
Perceived organizational support	The leader is available (6) The leader cares about the employees (4) Organizational culture and climate (3) Previously – lack of organizational support (3)
Team psychological safety	There is an interdisciplinary cooperation (6) It is a safe work environment (5) The leader contributes to safety (4) It is unsafe when criticism arises (4) There are trust-based work routines (3) We listen to each other (3) Previously – it has been unsafe work environment (3)
Readiness to change	Participation in change processes (7) Willing to change work method (7) Open for change (5) Leader contributes to CHA (3) Organization contributes to CHA (3) Colleagues contribute to CHA (3) Predictability (3)

Note. Table presents identified recurring themes for respondent's experience of the constructs. There was a total of 12 respondents interviewed. Themes mention by less than three respondents are not included.

Perceived organizational support. Several participants experienced their leader as available. This way, employees could easily communicate with him/her, ask questions and bring up issues. *“And this with our manager, who has now placed himself in the middle of us with his office. Not sitting by himself far away, but always has an open door, and you always have the opportunity to get in touch.”* Further, respondents mentioned that they felt like their leader cared for them, and strived to make everyone happy and satisfied. This could be by bringing cake to work, or ordering a specialized ergonomic chair for someone who needs it. These actions made them feel appreciated at work. *“...Bringing small surprises, like strawberries or a cake at a workday, because it is a holiday, or because it's cozy, or because it is a busy time.”*

Team psychological safety. It was a general consensus that team psychological safety exists at the represented work places. A certain amount of respondents mentioned their

PREDICTORS OF READINESS TO CHANGE

experience with interdisciplinary cooperation, where team members have different backgrounds and still manage to discuss issues and collaborate. *“The fact that it feels safe in the team office and the interdisciplinary meetings, where we discuss difficult situations so we can provide best possible care for the patient.”* Furthermore, it was mentioned that both the leader and colleagues contributed to the current safe work environment. *“Over the last half year the new leader has had huge respect for other people and that one may have different opinions and views on things. He invites to discussions and I feel like we have a very generous one.”* However, some of the participants mentioned that it can feel unsafe when criticism arises, which suggests that there are some aspects of their work lacking team psychological safety.

Readiness to change. Participation in the change process was mentioned by several respondents. By being included in the process, the employees got a clearer understanding of why they need to change and thus, become more supportive of the initiative. *“And when you allowed to be a part of the process and things get very clear for us, it is so much fun working with it.”* Furthermore, several respondents have experienced willingness to change work method and perceive themselves as open to change. Openness and willingness to change work methods were important factors because the employees had to adapt to new research and evidence, in order to provide the best service. Furthermore, it was mentioned that both leader, organization and colleagues contribute to readiness to change.

Discussion

The purpose of this study was to explore the relationship between perceived organizational support, readiness to change and psychological safety. More specifically, the aim of the study was to investigate whether perceived organizational support had a direct effect on readiness to change, and if there were an indirect effect on readiness to change through psychological safety. Four different hypotheses were derived and presented in a structural equation model. Whereas the results from the quantitative data are this study's core findings, results from the thematic analysis of in-depth employee interviews, supplement the SEM-analysis to get broader and deeper insight into the constructs.

The first hypothesis proposed that perceived organizational support would positively and directly predict readiness to change. The analysis produced positive and significant regression coefficients, and as a consequence, hypothesis 1 was retained. This indicates that individuals who perceive organizational support to a high degree is associated with enhanced levels of readiness to change.

PREDICTORS OF READINESS TO CHANGE

The second hypothesis suggested that perceived organizational support would positively predict team psychological safety. The results displayed a positive significant regression coefficient, thus hypothesis 2 was retained. The strength of the relationship was found to be of significant magnitude (β and R^2) with perceived organizational support explaining 17% of the variance in team psychological safety. This result suggests that individuals perceiving the organization as supportive also experience increased team psychological safety.

The third hypothesis proposed that psychological safety would positively predict readiness to change. A significant positive relationship between team psychological safety and readiness to change was found. Consequently, hypothesis 3 was also retained, which indicates that if individuals score high on team psychological safety, they will experience a higher level of readiness to change.

The fourth hypothesis suggested that perceived organizational support would positively predict readiness to change through its effect on team psychological safety. The confidence interval of the indirect effect displayed a small variation in the estimate produced by the bootstrap procedure and did not include zero. However, the lower bound estimate of the indirect effect tended to zero. The hypothesis was retained, due to significant effect sizes in the predicted direction and confidence intervals which did not include zero. Team psychological safety mediated 32% of the effect POS had on readiness to change. This indicates that perceived support from the organization can facilitate for readiness to change because a supportive environment seems to increase team psychological safety, which in turn affects readiness to change. In total, POS and team psychological safety explained a moderate portion (27 %) of variance in readiness to change.

In summary, the quantitative results suggest that perceived organizational support positively affects team psychological safety, which in turn influences readiness to change. In addition, there is a positive direct effect of perceived organizational support on readiness to change. All the hypotheses are retained, and the inspection of global and local fit supports the retention of the theorized model. The magnitude of the effect sizes indicates that there is a moderate relationship between the variables (Ferguson, 2016).

The qualitative data revealed some noteworthy information about both the conceptualization of the constructs and findings from the SEM-analysis. There was a general consensus regarding participants' construct comprehension of team psychological safety and readiness to change. Nevertheless, the findings revealed that the respondents were only concentrated on partially aspects of readiness to change which may induce challenges with

PREDICTORS OF READINESS TO CHANGE

the conceptual clarity. The participants' understanding of perceived organizational support were diverse, where several respondents stated unsupportive descriptions of the construct. The dissimilar understandings of POS may imply issues with the operationalization of the construct.

Regarding employees' perceived strengths and weaknesses, each construct were perceived as highly positive, where participants mentioned several advantages. The majority of perceived weaknesses concerned "too much" of the constructs, which could result in too causal relationships or ineffective work environment. The respondents' examples of experiences indicate that there exist organizational support, team psychological safety and readiness to change at their work place. Furthermore, several statements from participants were in line with findings from this study's SEM-analysis, supporting the relationships between the variables. The results from the qualitative analysis have implications for the conceptualization of the constructs and the validity of the quantitative data in this study, which will be further elaborated on. In sum, these findings have a number of theoretical and practical implications.

Implications

Theoretical implications

Overall, this study contributes to psychological research by increasing our knowledge about which factors that can foster readiness to change. At the theoretical level, the proposed model provides insights that can increase our understanding of the organizational change process in organizations. The findings provide a broader theoretical, conceptual and operational understanding of the constructs readiness to change, perceived organizational support and psychological safety. The following section will discuss the three constructs and their relationship with each other. Furthermore, participants' construct comprehension is used to strengthen or undermine the conceptual clarity and the present relationships.

Readiness to change

The results from this study build on previous research by emphasizing the importance of being supportive and to facilitate a climate for psychological safety in order for employees to be ready to change. Furthermore, the data in this study was collected from both a health care center and a department in an insurance company, which displays results across occupations and sectors, suggesting that these antecedents of readiness to change are similar for both white-collar workers and healthcare personnel.

Extensive research has been done to examine the antecedences of readiness to change, as a low level has been identified as the major reason for failure when implementing an

PREDICTORS OF READINESS TO CHANGE

organizational change (e.g. Armenakis et al., 1993; Kotter, 1996; Rafferty & Simons, 2005). Whereas previous research has demonstrated how the change message and communication can promote positive reactions for the change recipient (e.g. Armenakis & Harris, 2002; Wanberg & Banas, 2000), the current study suggests that more generalized actions from the organization, like providing support and facilitating psychological safety, may as well promote readiness to change. These findings indicate that everyday actions made by organizations during periods of stasis, may have an impact on the employees' reactions when the actual change initiative is introduced at a later time.

The findings in this study suggest that perceived organizational support's relationship with readiness to change is partially explained by team psychological safety, indicating that a high level of psychological safety is significant in fostering readiness to change. This study's results are in line with prior research (Eby et al., 2000; Gouldner, 1960; Self et al., 2007) which found that if employees perceive their organization as supportive along with the feeling that their psychological status is protected, they are more likely to believe that the change initiatives will not harm them or their interests. A possible explanation of the indirect effect POS has through psychological safety is the facilitation of interpersonal risk taking. During an organizational change, individuals often experience concerns and uncertainty. As POS has been found associated with greater comfort of risk taking (Neves & Eisenberger, 2014), it implies that psychological safety influences individuals' experience of uncertainty, where they feel more confident and capable of taking risks, thus feel capable of going through with the change.

Findings from the thematic analysis imply that there is a general consensus regarding the conceptual understanding of readiness to change between the interview participants, demonstrating an adequate construct comprehension. Supportive statements, such as willingness to change, open for change and the need for change were mentioned several times when explaining their understanding of readiness to change, indicating that they have a cognitive evaluation of the change initiative: *"It is the ability to think new and try again. Be willing to take a step out of your comfort zone and challenge yourself."* Another supportive statement is: *"I think one will be willing to embrace the change with a positive attitude. Not being negative and think that this could be a good thing."*

However, the majority of the participants emphasized the *individual* aspect of readiness to change, rather than the belief that the organization is capable of changing successfully, which might raise some concerns about the conceptualization of readiness to change. This approach reflects Vakola's (2014) operationalization of the construct,

PREDICTORS OF READINESS TO CHANGE

concentrating on the individual's own beliefs in their abilities and intentions to support the change. Vakola asserts the issue where current literature does not separate individual and organizational readiness to change. This can create confusions and contribute to a development for a partial approach to both theoretical and empirical work. One possible explanation of interview respondents' individual focus, is that this study used Vakola's (2014) instrument to measure readiness to change (with an additional item to measure self-efficacy to a greater degree), which might have biased the interview participants. Nevertheless, it also suggests some issues with the conceptualization of readiness to change, which can be further investigated by future research.

Perceived organizational support

The current study found that perceived organizational support has a positive direct effect on readiness to change, which is consistent with prior research (Eby et al., 2000; Gigliotti et al., 2019; Rafferty et al., 2012). This could be explained by the reciprocal norm, where employees who feel supported by the organization might feel obligated to return the favorable treatment and help the organization reach its goals and objectives, like undertake change initiatives (Rhoades & Eisenberger, 2002). Findings from the thematic analysis support this suggestion. Several participants mentioned that the support from their leader was valuable to them. This could lead to the employees wanting to return the same well-treatment:

“If you have special needs, like if you need special facilitations, and they do so and are willing to do it for you, then it does something with you. Less absence, more willing to go further, like you want to do something, to work, to give something back to the company you work for if you get the support you feel you need.”

Perceived organizational support can be seen as a primary intervention, which might explain the effect it has on readiness to change. Social support is preventive in situations that cause stress, thus work as a buffer to negative effects of organizational changes (Turgut et al., 2016). Furthermore, employees who feel that the organization will provide support, enough resources and information, will presumably be motivated to believe that they are capable of going through the change process (Armenakis & Harris, 2002). Interview participants supported quantitative findings when they were asked to elaborate on the strengths of POS. Support from the organization was emphasized when undergoing change or development activates: *“Again, it is a necessity when going through a change or organizational*

PREDICTORS OF READINESS TO CHANGE

development, which I do a lot. If the management does not provide support, it will not be easy to go through alone.”

Moreover, the results from this study contribute with empirical evidence that perceived organizational support has a significant positive effect on team psychological safety. These findings are consistent with previous research (Carmeli & Zisu, 2009; Edmondson, 1999, 2004) and Khan’s (1990) original theory, where he claims that interpersonal relationship and group dynamics are considered as central drivers of psychological safety perception.

The findings imply that when employees believe that their organization appreciates their contributions and cares about well-being, they experience a higher level of psychological safety than employees who do not perceive their organization as supportive. Perceived organizational support is claimed to fulfill socioemotional needs, such as esteem and approval (Eisenberger et al., 1986). When employees experience support from their organization, it may enhance their self-confidence so that they are not afraid of expressing their true identity to their colleagues. Additionally, when employees feel that the organization cares about their well-being, they are more likely to believe that their opinions are welcomed and therefore feel more confident to speak up about their concerns. This might explain the positive effect perceived organizational support has on team psychological safety.

Two interview participants mentioned that organizational support will lead to the feeling of emotional security.¹ It was pointed out that support from the organization would make them feel safe in the organization, in their work role as well as with their coworkers:

“ A key word that pops up right away is safety. Feeling safe in the organization, one is confident in one’s position, one is confident with one’s role and the job one is to perform. So both in relation to the people around you and your tasks.”

The feeling that the leader cares about the employees and their well-being, may contribute to psychological safety as well, which was further mentioned: *“...I believe it will contribute to psychological safety. Knowing that I can bring up issues, not just work related stuff, but knowing that my bosses are interested in how I am doing as a person.”* These statements support the quantitative findings where POS was found to positively predict PSY.

When interview participants were asked to provide their understanding of perceived organizational support, their responses were not fully consistent with the conceptualization

¹ Not included in Table 7 due to less than three respondents mentioning it.

PREDICTORS OF READINESS TO CHANGE

and definition of Eisenberger et al. (1986), indicating lack of construct comprehension. Although a larger part of the interview group provided supportive statements, there were several unsupportive statements: Some participants directed their perception of POS to the organizational structure and how it is designed: “*I believe the organization consists of several joints and that the joints support each other. That everyone is a limb on one body and a body cannot function without all the limbs.*” Interviewees also mentioned how they could support their organization, not vice versa, when providing their understanding of POS: “*And I think that the support is to be part of the organization and be loyal to it.*” These findings might indicate problems with the operationalization, because the participants understood the construct in a different way than it was operationalized. However, it should be noted that the CFA (after modifications) indicated that the measurement model fit the observed data. Thus, it is argued that POS is measured by a satisfactory instrument.

Psychological safety

The results of this study contribute with empirical support that team psychological safety positively predicts readiness to change. In other words, this study showed that when employees can be comfortable being one selves and exposing one’s thoughts, they experience higher levels of readiness to change than employees in teams who score low on psychological safety. Organizational change often requires employees to experiment, try new methods and ask question, where it is evident to suggest that a psychological safe team environment make the employees feel secure enough to take this kind of interpersonal risk (Edmondson et al., 2001). Furthermore, groups characterized by high level of psychological safety might promote open discussion where team members can bring up problems and issues, which often accompanies organizational changes. In this way employees can let go of their concerns, which may result in positive emotions towards the change (Rafferty et al., 2012). Individuals feeling safe with their coworkers can also reduce anxiety about the new work environment, thereby increasing their comfort level to the prospective change.

Another possible reason to explain the positive relationship between team psychological safety and readiness to change is self-efficacy. Employees who have the opportunity to seek help from their colleagues without the fear of being rejected, may increase their belief that they are capable and ready to undergo the change initiative. An individual who perceive him or herself as adapting easily to change may be more amendable to it and view the change as favorable. Therefore, employees who feel capable and safe to take interpersonal risk will most likely feel more ready for the change.

PREDICTORS OF READINESS TO CHANGE

In addition, the positive relationship between psychological safety and readiness to change is supported by the thematic analysis. When participants were asked to elaborate on their experiences of readiness to change, several elements of psychological safety was mentioned, where colleagues contribute to perceived readiness: *“All these things affect each other. Being confident in one another and wishing each other well contribute to being more willing to make a change.”* Participants highlighted that it was important to be confident with each other: *“A part of the job is to develop our knowledge, to be knowledge based. To work and develop in line with research. And to dare to try that, we have to be confident with each other to share.”* These statements strengthen the assumption that psychological safety is an important factor of organizational change and employees readiness for it.

Furthermore, the findings from the thematic analysis displayed a strong construct comprehension, where there was a general conceptual agreement between the interview participants, indicating an internal validity of the term. Nearly all of the interviewed employees emphasized the importance of expressing their opinion in the team when describing psychological safety, as well as not being rejected when doing so. Further, a safe work environment and colleagues who contribute to safety was mentioned, in addition to being able to show their weaknesses. Thus, the participant’s conceptual understanding is consistent with Edmondson’s (1999) definition of team psychological safety.

Practical implications

The practical implications of this study primarily concern the facilitation of readiness to change. The findings suggest that managers should focus on providing enough support for the employees prior to and during an organizational change initiative. More specifically, the managers should make sure enough that help is available and that the employees feel cared for, especially on matters affecting their job, but also at a personal level. This was emphasized by the interview participants, where several experienced that their leader cared about them and was available to talk to. Having a contact channel for employees to express their feelings and concerns may foster a feeling of care and relief.

Moreover, supervisors should express how much they value the subordinate’s work and contributions to the organization (e.g. by giving continuous feedback), as this have been identified as important facilitators for readiness to change. Further, it is advantageous to make sure that the employees have the right skills to do their current work tasks, as well as the planned tasks after the proposed change. In this way the employees may feel secure enough about their capabilities to go through with the planned change. It can be achieved by offering learning and training programs along with a focus on continuous personal development.

PREDICTORS OF READINESS TO CHANGE

When managers are supporting their subordinates, the norm of reciprocate will most likely continue to yield benefits for the changing organization. This kind of investment in employees is therefore argued to prevent an unsuccessful implementation of change. Additionally, employees who feel respected and supported might increase their psychological experience of safety to be comfortable expression their thoughts and opinions, which in turn can have a positive effect on employee's change readiness.

Managers must work strategically to create a climate of psychological safety so that employees can feel comfortable voicing their concerns and asking questions without fear of ridicule or punishment. A positive interpersonal climate does not emerge naturally. Even when employees are embedded in an organization with a strong culture, their perception of feeling safe to ask for help or admitting mistakes tend to vary between departments and teams (Edmondson, 2003). Managers should always have consistent communication and intentions to build and maintain psychological safety over time. Employees can also help through their courage to speak up and challenge the status quo, demonstrating that this behavior is acceptable. Simultaneously, managers must endorse their employees who engage in such manners, even though they may naturally prefer their employees to be silent agree.

Being able to collaborate in interdisciplinary teams was further emphasized by the interviewees. Managers should motivate employees to cooperate in such teams, e.g. by having different team building activates, so they can feel more comfortable with each other. Employees need to acknowledge and appreciate that team members have different backgrounds and expertise to optimize the collaboration and enhance the team psychological safety. The experiences provided by the respondents imply that they have a leader who emphasize the importance of team psychological safety, and that there is a high degree of safety at the represented work places.

It is important to acknowledge the unique position of the Nordic countries when it comes to practical implications. The Nordic Model is used to describe how work life is organized, where employee participation and development is emphasized. Regulations and obligations are legally established in the Norwegian Work Environment Act, where managers are required to involve employees in matters affecting their work. It is therefore evident to believe that a Norwegian sample might have high expectations for support and available resources from the organization and manager, compared to samples from other countries. Nevertheless, as mentioned earlier, employees value treatment that feels personal and voluntarily, as opposite to external factors such as government regulations. Hence,

PREDICTORS OF READINESS TO CHANGE

organizations may fare well when managers establish a safe work environment where employees feel respected, valued and appreciated.

Limitations

The present study has some methodological and theoretical limitations that need to be addressed. The first limitation concerns that this study uses a cross-sectional research design, where all variables are measured at the same time. This restricts the possibility to study the development of the variables over a period of time. In consequence, it is not possible to draw any conclusions regarding the casual relationship between the variables. This study contributes with evidence of a positive relationship between the variables, however, the causal relationship can be different than what this thesis hypothesizes, or there can be other influencing variables not included in the study. There is no remedy for this limitation post hoc, which means that future research is needed to determine causality, where a longitudinal study is suggested.

Secondly, the existence of common method variance (CMV) may threaten the validity of the study (Podsakoff, MacKenzie, Lee, & Podsakoff, 2003). This study investigates individual psychological variables, such as employees' perception and attitudes, which indeed suggests the use of self-report measures. However, self-report measures do have an increased risk of CMV because the same person reports on both the predictor and criterion variable, leading to potential biases and limitations. The real effect between the factors can be misleading because the factors related to the respondent or the questionnaire could systematically influence the covariation among the variables (Podsakoff et al., 2003). Social desirability bias is a common source of CMV in self-report limitations, which can affect the respondent's scoring of readiness to change. People seek to maintain a positive social identity (Tajfel & Turner, 1979) which could make the respondents answer the questionnaire in a way that presents them in a favorable light. However, the scales for POS and PSY are expressed as referent shifts, where it is asked about the actions or intentions of colleagues and the organization, rather than about own behavior and intention, which may limit social desirability. In addition, this study includes in-depth interviews which may reduce the degree of bias and increase the validity and reliability of the findings, because the researcher will get a deeper insight into the constructs. However, it has been shown that face-to-face interviews tend to induce more socially desirable responding, which must be taken into consideration (Richman, Kiesler, Weisband, & Drasgow, 1999).

Thirdly, this study's limitations might include the conceptualization of readiness to change, and thereby the scale used to measure it. The scale originates from Vakola (2014),

PREDICTORS OF READINESS TO CHANGE

who consider readiness to change as individual's own beliefs in their abilities and intentions to support the change. The scale has less focus on the belief in organizational abilities, which might indicate that the measurement used in this study may not capture the construct's full essence. This study's operationalization of readiness to change should therefore be taken into consideration, and future research might benefit from investigating how to optimize the measurement of readiness to change. However, the qualitative findings display an individual focus within the interview participants' subjective understanding of readiness to change, supporting the scale used in this study. Furthermore, whereas the first six questions originates from Vakola (2014), a seventh item was added to enrich the measure of self-efficacy, as recommended by Jørgensen (2019). The full scale should be validated in future studies to determine whether the item contributes to the scale.

A fourth possible limitation is the challenges regarding translations, especially in the qualitative data. When translating the constructs to Norwegian, there might occur some nuances in the meaning of the words of the constructs which can raise issues concerning the validity of this study. Readiness to change was in this study, directly translated to "willingness to change" in Norwegian, which might explain why several participants mentioned willingness as a central aspect. Furthermore, the translation of quotes can cause challenges due to the difficulty of translating concepts where participants use specific culturally bound words (van Nes, Abma, Jonsson, & Deeg, 2010). Therefore, there is a chance that some of the words used by the participants have been lost in translation.

At last, the generalizability needs to be discussed. This study is based on data from a health care center and a department in an insurance company in Norway. Although the response rate was satisfactory (51%), the number of respondents were quite low and met only the minimum criterion for conducting the SEM-analysis (N=121). Additionally, the sample skewed towards female employees (76.9% women and 21.5% men). Future studies should replicate this study among more diverse and larger samples, both quantitative and qualitative. This could increase representativeness to the population, and enable comparison between sectors to see if there are any differences. Further, the sample is based on data conducted within a Western society, and cultural differences may affect the research result. In other cultures, employees may be more hesitant to openly ask questions, provide feedback or engage in discussions because it might be considered impolite or rude (Edmondson & Lei, 2014). Future studies could benefit from designing a cross-cultural study comparing Western cultures with Eastern societies, where power distance and collectivism are ranked higher than most Western cultures (Hofstede, 1983).

Future research

This study's findings and limitations open up for several opportunities for future research. Firstly, future research may benefit to look into the conceptualization of readiness to change in order to receive a more definitional and conceptual clarity. One could argue that individual readiness to change, where employees think about one own's capabilities, is distinct from the organization's capabilities to change. As Vakola (2014) suggests, along with the findings from this study, a more distinct differentiation between individual and organizational readiness could be beneficial. Future research could also examine whether the same antecedents are equally influential on both organizational or individual aspects, or whether there are distinct sets of antecedents. New insight can be achieved by applying a more systemic approach in future studies of readiness to change.

Another suggestion for future research is to investigate individual's comprehension of perceived organizational support in various work environments. As this study revealed some considerable variances of employees' individual understandings, future studies should try to validate this comprehension, preferably by conducting more interviews with a deeper elaboration on POS alone. Future investigation should also include interviews with managers and other supervisors to explore the current construct in greater details. By including these groups one may uncover unique aspects of how an executive officer or others with leader responsibilities perceive their organization. New insight can clarify whether the construct has a different meaning in Norwegian and in a Norwegian context. Every work place is unique, so employees might have a nuanced individual experience of their environment, hence a dissimilar understanding of support from the organization. This further emphasizes the importance of a qualitative perspective to supplement quantitative data.

Moreover, future studies should investigate the current variables using a longitudinal design to better assess the causality between the variables and the potential mediating effect of psychological safety. A longitudinal research will enable an examination of changes in the variables over time, to gain a more dynamic perspective of the phenomena. Individual's perception of readiness to change may be equally dynamic if the organization is continually reforming itself (Eby et al., 2000). Further, it is possible that sufficient organizational support or psychological safety at one point in time promote readiness to change at that time only. It is also likely that the effect of psychological safety becomes less noticeable over time as members of the group can become too comfortable with each other. This could result in the employees spending unfortunate amounts of time in casual conversations instead of engaging in discussions or asking questions to promote change readiness. Longitudinal studies may

PREDICTORS OF READINESS TO CHANGE

therefore be particularly useful to understand employees' possible changing perception of readiness to change.

At last, as in any study, there may be other unobserved variables that could be interesting to explore. Several interview participants mentioned activities from their leader as a central feature of perceived organizational support. As such, an interesting avenue for future research would be to investigate the role of leader's behaviors as a potential mediator. For example, research has found that transformational leadership is associated with readiness to change (Nordin, 2012; Santhidran, Chandran, & Borromeo, 2013). Further, participation in the change process was emphasized by the interviewees when providing experiences of readiness to change. Hence, employee participation may have an effect on employees' support and belief in the proposed change, and could be a compelling factor for future studies to investigate.

Conclusion

The concept of readiness to change has gained a lot of attention due to its importance in organizational changes, where change recipients are no longer seen as merely passive recipients. To provide more knowledge on how to best manage a change initiative, this study aimed to investigate how to facilitate for employee's support and belief in the proposed change. The study's findings extend prior research by providing empirical evidence of the positive effect of perceived organizational support and team psychological safety on the perception of readiness to change. More specifically, the results indicate that perceived organizational support has a significant direct effect on the level of readiness to change. Furthermore, perceived organizational support has a positive impact on employees' team psychological safety which is, in turn, beneficial for readiness to change. Hence, to succeed with a change initiative, the organization and leaders could benefit from implementing measures to increase organizational support and team psychological safety among employees, in advance of the proposed change. In addition, the study suggests further investigation of the current constructs as the qualitative findings showed some nuances in participant's construct comprehension.

These empirical findings may be argued to be of particular relevance in today's change oriented society. Nonetheless, important questions remain, and hopefully, this thesis will inspire researchers to pursue exciting and useful avenues of investigation within these relationships.

References

- Ainsworth, M. D. S., & Bell, S. M. (1974). Mother-Infant Interaction and the Development of Competence.
- Armenakis, A., Bernerth, J. B., Pitts, J. P., & Walker, H. J. (2007). Organizational Change Recipients' Beliefs Scale: Development of an Assessment Instrument. *The Journal of Applied Behavioral Science*, 43(4), 481-505. doi:10.1177/0021886307303654
- Armenakis, A., Harris, S., & Mossholder, K. (1993). Creating Readiness for Organizational Change. *Human Relations*, 46(6), 681-703. doi:10.1177/001872679304600601
- Armenakis, A., & Harris, S. G. (2002). Crafting a change message to create transformational readiness. *Journal of Organizational Change Management*, 15(2), 169-183. doi:10.1108/09534810210423080
- Bandura, A. (1977). Self-efficacy: Toward a unifying theory of behavioral change. *Psychological Review*, 84(2), 191-215. doi:10.1037/0033-295X.84.2.191
- Bennis, W., & Schein, E. H. (1965). *Personal and Organizational Change Through Group Methods*. New York: John Wiley & Sons.
- Bentler, P., & Chou, C.-P. (1987). Practical Issues in Structural Equation Modeling. *Sociological Methods & Research*, 16. doi:10.1177/0049124187016001004
- Bergmann, B., & Schaeppi, J. (2016). A Data-Driven Approach to Group Creativity. *Harvard Business Review*.
- Boomsma, A. (1985). Nonconvergence, improper solutions, and starting values in LISREL maximum likelihood estimation. *Psychometrika*, 50(2), 229-242. doi:10.1007/BF02294248
- Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology*, 3(2), 77-101. doi:10.1191/1478088706qp063oa
- Brown, T. A. (2015). *Confirmatory factor analysis for applied research*: Guilford publication.
- Burnes, B. (2009). *Managing change : a strategic approach to organisational dynamics* (4th ed. ed.). Harlow.
- Burnes, B., & Jackson, P. (2011). Success and Failure In Organizational Change: An Exploration of the Role of Values. *Journal of Change Management*, 11(2), 133-162. doi:10.1080/14697017.2010.524655
- Carmeli, A., Brueller, D., & Dutton, J. E. (2009). Learning behaviours in the workplace: The role of high-quality interpersonal relationships and psychological safety. *Systems Research and Behavioral Science*, 26(1), 81-98. doi:10.1002/sres.932
- Carmeli, A., & Zisu, M. (2009). The relational underpinnings of quality internal auditing in medical clinics in Israel. *Social Science & Medicine*, 68(5), 894-902. doi:<https://doi.org/10.1016/j.socscimed.2008.12.031>
- Cataldo, C. G., Raelin, J. D., & Lambert, M. (2009). Reinvigorating the Struggling Organization: The Unification of Schein's Oeuvre Into a Diagnostic Model. *The Journal of Applied Behavioral Science*, 45(1), 122-140. doi:10.1177/0021886308328849
- Chenail, R. J. (2011). Interviewing the Investigator: Strategies for Addressing Instrumentation and Researcher Bias Concerns in Qualitative Research. *The Qualitative Report*, 16(1), 255-262. Retrieved from <https://nsuworks.nova.edu/tqr/vol16/iss1/16>
- Choi, M., & Ruona, W. (2016). Individual readiness for organizational change. In S. Clarke, T. Probst, Probst Frank, Guldenmund, & J. Passmore (Eds.), *The Wiley Blackwell Handbook of the Psychology of Occupational Safety and Workplace Health*. United Kingdom: John Wiley & Sons.
- Clarke, C., & Milne, B. (2001). *National Evaluation of the PEACE Investigative Interviewing Course*. London, UK: Home Office.

PREDICTORS OF READINESS TO CHANGE

- Creswell, J. W., Plano Clark, V. L., Gutmann, M. L., & Hanson, W. E. (2003). Advanced mixed methods research designs. *Handbook of mixed methods in social and behavioral research*, 209, 240.
- Cronbach, L. J. (1946). Response sets and test validity. *Educational and psychological measurement*, 6(4), 475-494.
- Cross, R., Rebele, R., & Grant, A. (2016). Collaborative overload. *Harvard Business Review*.
- Ditlevsen, S., Christensen, U., Lynch, J., Damsgaard, M. T., & Keiding, N. (2005). The mediation proportion: a structural equation approach for estimating the proportion of exposure effect on outcome explained by an intermediate variable. *Epidemiology*, 16(1), 114-120. doi:10.1097/01.ede.0000147107.76079.07
- Eby, L. T., Adams, D. M., Russell, J. E. A., & Gaby, S. H. (2000). Perceptions of Organizational Readiness for Change: Factors Related to Employees' Reactions to the Implementation of Team-Based Selling. *Human Relations*, 53(3), 419-442. doi:10.1177/0018726700533006
- Edmondson, A. (1999). Psychological Safety and Learning Behavior in Work Teams. *Administrative Science Quarterly*, 44(2), 350-383. doi:10.2307/2666999
- Edmondson, A. (2003). Speaking Up in the Operating Room: How Team Leaders Promote Learning in Interdisciplinary Action Teams. *Journal of Management Studies*, 40(6), 1419-1452. doi:10.1111/1467-6486.00386
- Edmondson, A. (2004). Psychological Safety, Trust, and Learning in Organizations: A Group-Level Lens. In R. Kramer & K. Cook (Eds.), *Trust and distrust in organizations: Dilemmas and approaches*. (pp. 239-272). New York: Russell Sage Foundation.
- Edmondson, A. (2011). Psychological Safety, Trust, and Learning in Organizations: A Group-level Lens. *Trust and Distrust in Organizations: Dilemmas and Approaches*.
- Edmondson, A. (2019). *The Fearless Organization : Creating Psychological Safety in the Workplace for Learning, Innovation, and Growth*. Hoboken, New Jersey: Wiley.
- Edmondson, A., Bohmer, R., & Pisano, G. (2001). Disrupted Routines: Team Learning and New Technology Implementation in Hospitals. *Administrative Science Quarterly*, 46(4), 685-716. doi:10.2307/3094828
- Edmondson, A., & Lei, Z. (2014). Psychological Safety: The History, Renaissance, and Future of an Interpersonal Construct. *Annual Review of Organizational Psychology and Organizational Behavior*, 1(1), 23-43. doi:10.1146/annurev-orgpsych-031413-091305
- Edmondson, A., & Mogelof, J. P. (2005). Explaining psychological safety in innovation teams: Organizational culture, team dynamics, or personality? *Creativity and Innovation in Organizational Teams*, 109-136. doi:10.4324/9781410615732
- Eisenberger, R., Armeli, S., Rexwinkel, B., Lynch, P. D., & Rhoades, L. (2001). Reciprocation of perceived organizational support. *Journal of Applied Psychology*, 86(1), 42-51. doi:10.1037/0021-9010.86.1.42
- Eisenberger, R., Cummings, J., Armeli, S., & Lynch, P. (1997). Perceived organizational support, discretionary treatment, and job satisfaction. *Journal of Applied Psychology*, 82(5), 812.
- Eisenberger, R., Huntington, R., Hutchison, S., & Sowa, D. (1986). Perceived organizational support. In (pp. 500-507). Washington, D.C.
- Eisenberger, R., Karagonlar, G., Stinglhamber, F., Neves, P., Becker, T. E., Gonzalez-Morales, M. G., & Steiger-Mueller, M. (2010). Leader-member exchange and affective organizational commitment: The contribution of supervisor's organizational embodiment. *Journal of Applied Psychology*, 95(6), 1085-1103. doi:10.1037/a0020858

PREDICTORS OF READINESS TO CHANGE

- Eisenberger, R., Stinglhamber, F., Vandenberghe, C., Sucharski, I. L., & Rhoades, L. (2002). Perceived supervisor support: Contributions to perceived organizational support and employee retention. *Journal of Applied Psychology, 87*(3), 565-573. doi:10.1037/0021-9010.87.3.565
- Ferguson, C. J. (2016). *An effect size primer: A guide for clinicians and researchers*. (doi:10.1037/14805-020). American Psychological Association, Washington, DC, US.
- Frazier, M. L., Fainshmidt, S., Klinger, R. L., Pezeshkan, A., & Vacheva, V. (2017). Psychological safety: A meta-analytic review and extension. *Personnel Psychology, 70*(1), 113-165.
- Gigliotti, R., Vardaman, J., Marshall, D. R., & Gonzalez, K. (2019). The Role of Perceived Organizational Support in Individual Change Readiness. *Journal of Change Management, 19*(2), 86-100. doi:10.1080/14697017.2018.1459784
- Gouldner, A. W. (1960). The Norm of Reciprocity: A Preliminary Statement. *American Sociological Review, 25*(2), 161-178. doi:10.2307/2092623
- Hair, J. F., Black, W. C., Babin, B. J., & Anderson, R. E. (2014). *Multivariate data analysis* (7th ed.). Harlow: Pearson.
- Hofstede, G. (1983). The Cultural Relativity of Organizational Practices and Theories. *Journal of International Business Studies, 14*(2), 75-89. doi:10.1057/palgrave.jibs.8490867
- Holt, D. T., Armenakis, A. A., Feild, H. S., & Harris, S. G. (2007). Readiness for Organizational Change: The Systematic Development of a Scale. *The Journal of Applied Behavioral Science, 43*(2), 232-255. doi:10.1177/0021886306295295
- Holt, D. T., & Vardaman, J. M. (2013). Toward a Comprehensive Understanding of Readiness for Change: The Case for an Expanded Conceptualization. *Journal of Change Management, 13*(1), 9-18. doi:10.1080/14697017.2013.768426
- Janis, I. L. (1972). *Victims of groupthink: A psychological study of foreign-policy decisions and fiascoes*. Oxford, England: Houghton Mifflin.
- Jørgensen, Å. S. (2019). *The Competing Values Framework in the Norwegian Police: Paradoxical or Interacting? The Relationship between the CVF, Change Readiness and Training Climate in the Norwegian Police*. (Master). University of Oslo, Retrieved from <http://urn.nb.no/URN:NBN:no-72534>
- Kahn, W. A. (1990). Psychological Conditions of Personal Engagement and Disengagement at Work. *The Academy of Management Journal, 33*(4), 692-724. doi:10.2307/256287
- Kahn, W. A. (2001). Holding Environments at Work. *The Journal of Applied Behavioral Science, 37*(3), 260-279. doi:10.1177/0021886301373001
- Keenan, A., & Newton, T. (1985). Stressful events, stressors and psychological strains in young professional engineers. *Journal of Organizational Behavior, 6*(2), 151-156.
- Kline, R. B. (2016). *Principles and practice of structural equation modeling* (4th ed.). New York: Guilford publications.
- Koritzinsky, V. H. (2015). *Measuring Police Climate: The development and evaluation of an instrument measuring police organizational climate*. (Master). University of Oslo, Oslo. Retrieved from <http://urn.nb.no/URN:NBN:no-49029>
- Kotter, J. P. (1996). *Leading change*: Harvard business press.
- Kurtessis, J. N., Eisenberger, R., Ford, M. T., Buffardi, L. C., Stewart, K. A., & Adis, C. S. (2015). Perceived Organizational Support: A Meta-Analytic Evaluation of Organizational Support Theory. *Journal of Management, 43*(6), 1854-1884. doi:10.1177/0149206315575554
- Levinson, H. (1965). Reciprocation: The relationship between man and organization. *Administrative Science Quarterly, 9*(4), 370-390. doi:10.2307/2391032

PREDICTORS OF READINESS TO CHANGE

- Lewin, K. (1947). Frontiers in Group Dynamics: Concept, Method and Reality in Social Science; Social Equilibria and Social Change. *Human Relations*, 1(1), 5-41. doi:10.1177/001872674700100103
- Lewin, K. (1951). *Problems of research in social psychology*. New York: Harper & Brothers.
- Liu, S., Hu, J., Li, Y., Wang, Z., & Lin, X. (2014). Examining the cross-level relationship between shared leadership and learning in teams: Evidence from China. *The Leadership Quarterly*, 25(2), 282-295. doi:<https://doi.org/10.1016/j.leafqua.2013.08.006>
- Lund, T. (2012). Combining Qualitative and Quantitative Approaches: Some Arguments for Mixed Methods Research. *Scandinavian Journal of Educational Research*, 56(2), 155-165. doi:10.1080/00313831.2011.568674
- Lynch, P. D., Eisenberger, R., & Armeli, S. (1999). Perceived organizational support: Inferior versus superior performance by wary employees. *Journal of Applied Psychology*, 84(4), 467-483. doi:10.1037/0021-9010.84.4.467
- MacCallum, R. C., Roznowski, M., & Necowitz, L. B. (1992). Model modifications in covariance structure analysis: the problem of capitalization on chance. *Psychological bulletin*, 111(3), 490.
- Mazzola, J. J., Schonfeld, I. S., & Spector, P. E. (2011). What qualitative research has taught us about occupational stress. *Stress and Health*, 27(2), 93-110.
- McKinsey. (2008). Creating organizational transformations. *The McKinsey Quarterly*, July 1-7. Retrieved from <http://www.mckinseyquarterly.com>
- Nembhard, I., & Edmondson, A. (2006). Making it safe: the effects of leader inclusiveness and professional status on psychological safety and improvement efforts in health care teams. *Journal of Organizational Behavior*, 27(7), 941-966. doi:10.1002/job.413
- Nembhard, I., & Edmondson, A. (2012). Psychological Safety: A Foundation for Speaking Up, Collaboration, and Experimentation in Organizations. *The Oxford Handbook of Positive Organizational Scholarship*. doi:10.1093/oxfordhb/9780199734610.013.0037
- Neves, P., & Eisenberger, R. (2014). Perceived organizational support and risk taking. *Journal of Managerial Psychology*, 29(2), 187-205. doi:10.1108/JMP-07-2011-0021
- Newman, A., Donohue, R., & Eva, N. (2017). Psychological safety: A systematic review of the literature. *Human Resource Management Review*, 27(3), 521-535. doi:10.1016/j.hrmr.2017.01.001
- Nordin, N. (2012). The influence of leadership behavior and organizational commitment on organizational readiness for change in a higher learning institution. *Asia Pacific Education Review*, 13(2), 239-249. doi:10.1007/s12564-011-9200-y
- Oreg, S., Vakola, M., & Armenakis, A. (2011). Change Recipients' Reactions to Organizational Change: A 60-Year Review of Quantitative Studies. *The Journal of Applied Behavioral Science*, 47(4), 461-524. doi:10.1177/0021886310396550
- Pearsall, M. J., & Ellis, A. P. J. (2011). Thick as thieves: The effects of ethical orientation and psychological safety on unethical team behavior. *Journal of Applied Psychology*, 96(2), 401-411. doi:10.1037/a0021503
- Pfeffer, J., & Sutton Robert, I. (2001). The Knowing-Doing Gap: How Smart Companies Turn Knowledge into Action. *Supply Chain Management: An International Journal*, 6(3), 142-143. doi:10.1108/scm.2001.6.3.142.1
- Podsakoff, P. M., MacKenzie, S. B., Lee, J.-Y., & Podsakoff, N. P. (2003). Common method biases in behavioral research: a critical review of the literature and recommended remedies. *Journal of Applied Psychology*, 88(5), 879.
- Preacher, K. J., & Hayes, A. F. (2008). Asymptotic and resampling strategies for assessing and comparing indirect effects in multiple mediator models. *Behavior Research Methods*, 40(3), 879-891. doi:10.3758/BRM.40.3.879

PREDICTORS OF READINESS TO CHANGE

- Rafferty, A. E., Jimmieson, N. L., & Armenakis, A. A. (2012). Change Readiness: A Multilevel Review. *Journal of Management*, 39(1), 110-135. doi:10.1177/0149206312457417
- Rafferty, A. E., & Restubog, S. (2010). The Impact of Change Process and Context on Change Reactions and Turnover During a Merger. *Journal of Management*, 36, 1309-1338. doi:10.1177/0149206309341480
- Rafferty, A. E., & Simons, R. H. (2005). An examination of the antecedents of readiness for fine-tuning and corporate transformation changes. *Journal of Business and Psychology*, 20(3), 325. doi:10.1007/s10869-005-9013-2
- Rhoades, L., & Eisenberger, R. (2002). Perceived organizational support: A review of the literature. *Journal of Applied Psychology*, 87(4), 698-714. doi:10.1037/0021-9010.87.4.698
- Richman, W., Kiesler, S., Weisband, S., & Drasgow, F. (1999). A Meta-Analytic Study of Social Desirability Distortion in Computer-Administered Questionnaires, Traditional Questionnaires, and Interviews. *Journal of Applied Psychology*, 84, 754-775. doi:10.1037/0021-9010.84.5.754
- Santhidran, S., Chandran, V. G. R., & Borromeo, J. (2013). Enabling organizational change – leadership, commitment to change and the mediating role of change readiness. *Journal of Business Economics and Management*, 14(2), 348-363. doi:10.3846/16111699.2011.642083
- Schein, E. (1985). *Organizational culture and leadership*. San Francisco: Jossey-Bass.
- Schein, E. (1996). Kurt Lewin's change theory in the field and in the classroom: Notes toward a model of managed learning. *Systems practice*, 9(1), 27-47. doi:10.1007/BF02173417
- Schein, E., & Bennis, W. (1965). *Personal and Organizational Change Through Group Methods*. New York: Wiley.
- Self, D. R., Armenakis, A. A., & Schraeder, M. (2007). Organizational Change Content, Process, and Context: A Simultaneous Analysis of Employee Reactions. *Journal of Change Management*, 7(2), 211-229. doi:10.1080/14697010701461129
- Tajfel, H., & Turner, J. C. (1979). An integrative theory of intergroup conflict. In W. G. Austin & S. Worchel (Eds.), *The social psychology of intergroup relations*. Monterey, CA: Brooks/Cole.
- Tetenbaum, T. J. (1998). Shifting paradigms: From Newton to chaos. *Organizational Dynamics*, 26(4), 21-33.
- Turgut, S., Michel, A., Rothenhöfer, L., & Sonntag, K. (2016). Dispositional resistance to change and emotional exhaustion: moderating effects at the work-unit level. *European Journal of Work and Organizational Psychology* 25(5), 735 - 750. doi:10.1080/1359432X.2016.1157583
- Vakola, M. (2014). What's in there for me? Individual readiness to change and the perceived impact of organizational change. *Leadership & Organization Development Journal*, 35(3), 195-209. doi:10.1108/LODJ-05-2012-0064
- van Nes, F., Abma, T., Jonsson, H., & Deeg, D. (2010). Language differences in qualitative research: is meaning lost in translation? *European Journal of Ageing*, 7(4), 313-316. doi:10.1007/s10433-010-0168-y
- Walumbwa, F. O., & Schaubroeck, J. (2009). Leader personality traits and employee voice behavior: Mediating roles of ethical leadership and work group psychological safety. *Journal of Applied Psychology*, 94(5), 1275-1286. doi:10.1037/a0015848
- Wanberg, C. R., & Banas, J. T. (2000). Predictors and outcomes of openness to changes in a reorganizing workplace [American Psychological Association doi:10.1037/0021-9010.85.1.132]. Retrieved

PREDICTORS OF READINESS TO CHANGE

- West, M. A. (1990). The social psychology of innovation in groups. In M. A. West & J. L. Farr (Eds.), *Innovation and creativity at work: Psychological and organizational strategies*. (pp. 309-333): John Wiley & Sons.
- Wolf, E. J., Harrington, K. M., Clark, S. L., & Miller, M. W. (2013). Sample Size Requirements for Structural Equation Models: An Evaluation of Power, Bias, and Solution Propriety. *Educational and psychological measurement*, 73(6), 913-934. doi:10.1177/0013164413495237
- Zhou, K. Z., Gao, G. Y., Yang, Z., & Zhou, N. (2005). Developing strategic orientation in China: antecedents and consequences of market and innovation orientations. *Journal of Business Research*, 58(8), 1049-1058. doi:<https://doi.org/10.1016/j.jbusres.2004.02.003>

APPENDIX 1: Measures in Norwegian

Construct	Item name	Item statement
Perceived organizational support	POS_1	Denne organisasjonen bryr seg virkelig om de ansattes velvære
	POS_2	Denne organisasjonen tar i stor grad hensyn til de ansattes målsettinger og verdier
	POS_3	Denne organisasjonen viser lite omsorg for de ansatte
	POS_4	Denne organisasjonen bryr seg om hva de ansatte mener
	POS_5	Denne organisasjonen er villig til å hjelpe de ansatte om de har behov for en spesiell tjeneste
	POS_6	Hjelp er tilgjengelig fra denne organisasjonen når de ansatte har et problem
	POS_7	Denne organisasjonen ville tilgi de ansatte om de gjorde en ærlig feil
	POS_8	Gitt muligheten, ville denne organisasjonen utnyttet de ansatte.
Readiness to change	CHA_1	Når endringer skjer på min enhet tror jeg at jeg er klar for å takle dem.
	CHA_2	Jeg prøver vanligvis å overbevise folk på min enhet om å akseptere endring.
	CHA_3	Når endringer skjer på min enhet pleier jeg å klage på dem heller enn å gjøre noe med dem.
	CHA_4	Jeg tror at jeg er mer klar for å akseptere endring enn mine kollegaer på min enhet.
	CHA_5	Jeg er ikke bekymret for endringer på min enhet fordi jeg tror at det er en måte å takle dem på.
	CHA_6	Når endringer skjer på min enhet har jeg stort sett til hensikt å støtte dem.
	CHA_7	Jeg er sikker på at jeg raskt vil kunne tilpasse meg endringer på min enhet

PREDICTORS OF READINESS TO CHANGE

Team psychological safety	PSY_1	Dersom du gjør en feil i dette teamet, blir det ofte holdt mot deg.
	PSY_2	Det er lett å ta opp problemer og kontroversielle temaer i dette teamet.
	PSY_3	Medlemmer i dette teamet kan av og til avvise andre for å være annerledes
	PSY_4	Det er trygt å ta en risiko/sjanse i dette teamet.
	PSY_5	Det er vanskelig å spørre andre teammedlemmer om hjelp.
	PSY_6	Ingen på dette teamet vil bevisst opptre på en måte som undergraver min innsats.
	PSY_7	Når jeg jobber med medlemmer av dette teamet, blir mine unike ferdigheter og talenter verdsatt og utnyttet.

APPENDIX 2: Information letter w/ interview questions in Norwegian

Informasjonsskriv

I samarbeid med ***** samt studieveileder Cato Bjørkli v/ Psykologisk Institutt (UiO) vil vi intervjuer deg angående ditt arbeidsmiljø/team. Intervjuerne består av to masterstudenter fra Arbeid- og organisasjonspsykologi-programmet ved UiO; Bjørn Nilsen Fjermedal og Amalie Celin Gundersen.

Det er valgfritt å delta og det er mulig å trekke seg eller frastå fra å svare når som helst underveis i intervjuet, uten å måtte begrunne dette nærmere.

Ønsker du å delta vil intervjuet bli tatt opp elektronisk. Lydopptak av samtalene vil lagres på eget dataområde på universitetets system, hvor kun intervjuerne og prosjektledelsen har adgang.

Opptaket vil bli slettet ved prosjektet slutt, ca 15.05.2020.

Intervjuet vil bli anonymisert og analysert.

Opplysningene vil bli behandlet konfidensielt, og ingen enkeltpersoner vil kunne gjenkjennes. Resultatene fra intervjuet vil brukes til to masteroppgaver ved Psykologisk Institutt (UiO).

Intervjuet er semistrukturert med satte spørsmål i tillegg til relevante oppfølgingsspørsmål. Formålet er å få en subjektiv begrepsforståelse, samt innsikt i styrker og svakheter ved sin arbeidsplass.

Du vil snart bli spurt en rekke spørsmål angående din arbeidsplass

Samtykker du å delta i prosjektet?

Har du noen andre spørsmål før vi begynner?

PREDICTORS OF READINESS TO CHANGE

Intervjuspørsmål:

1. Hva legger du i begrepet psykologisk trygghet?
 - a. Fortell om det du ser som styrker ved psykologisk trygghet
 - b. Fortell om det du ser som svakheter ved psykologisk trygghet?
 - c. Fortell om eksempler angående psykologisk trygghet fra din arbeidsplass

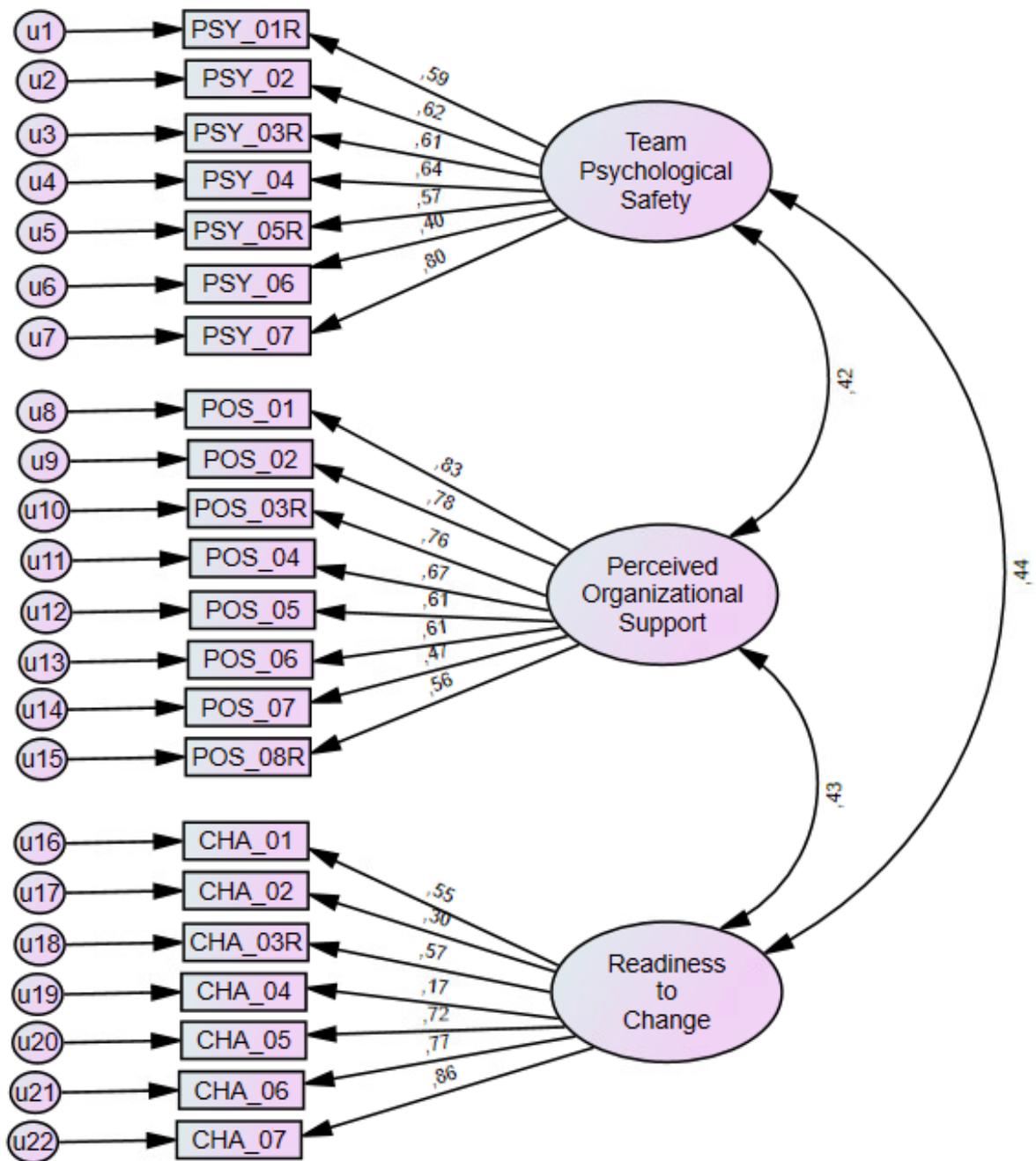
2. Hva legger du i begrepet medvirkning?
 - a. Fortell om det du ser som styrker ved medvirkning
 - b. Fortell om det du ser som svakheter ved medvirkning
 - c. Fortell om eksempler angående medvirkning fra din arbeidsplass

3. Hva legger du i begrepet organisatorisk støtte?
 - a. Fortell om det du ser som styrker ved organisatorisk støtte
 - b. Fortell om det du ser som svakheter ved organisatorisk støtte
 - c. Fortell om eksempler angående organisatorisk støtte fra din arbeidsplass

4. Hva legger du i begrepet lederinkludering?
 - a. Fortell om det du ser som styrker ved lederinkludering
 - b. Fortell om det du ser som svakheter ved lederinkludering
 - c. Fortell om eksempler angående lederinkludering fra din arbeidsplass

5. Hva legger du i begrepet endringsvillighet?
 - a. Fortell om det du ser som styrker ved endringsvillighet
 - b. Fortell om det du ser som svakheter ved endringsvillighet
 - c. Fortell om eksempler angående endringsvillighet fra din arbeidsplass

APPENDIX 3: Measurement model 1 – Path diagram



APPENDIX 4: Measurement model 2 – Path diagram

