Proposing initiating structure as leadership style to reduce psychological distress

An analysis about the relationship between initiating structure and psychological distress, while allowing for effects of leader trust and organizational change

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Abstract

This study investigates the relationship between initiating structure and psychological distress, both directly and through leader trust, while taking into consideration that different levels of perceived organizational change might influence these relationships. Based on theory, it was expected that initiating structure would reduce psychological distress directly, and through leader trust. Furthermore, it was expected that organizational change would strengthen the effects in these relationships. This was mainly based on the job demands-resources-support model and the social exchange theory. A cross-sectional dyadic study was conducted using online surveys to gather data. The sample was retrieved through non-probability sampling (self-selection, volunteer sampling and snowball sampling), which resulted in 125 dyads in total, of which 78 were unique. Contrary to expectations, initiating structure was not directly related to psychological distress. However, initiating structure is shown to reduce distress through leader trust, which confirms theory. Furthermore, this study did not provide significant effects of organizational change on these relationships. This study contributed to the literature by providing insight in the mechanism through which initiating structure influences psychological distress, in the behavior of leader trust in a new context, and in how task-oriented leadership influences negative well-being. In addition, this study is of practical use for Dutch organizations, since it indicates the relevance of initiating structure and building leader trust in lowering psychological distress among employees. Future research is needed to uncover the moderating role of organizational change, and other possible mediators in the relationship between initiating structure and psychological distress.

Introduction

Psychological health has been an issue in the workplace for a long time (ILO, 2021). Psychological health includes both well- and ill-being of employees (Thibault Landry et al., 2016). In the Netherlands, about 12% of the population was psychologically unhealthy in 2020 (Centraal Bureau voor de Statistiek, 2021a). In 2021, psychological health in the Netherlands got to its absolute low, where 15% of the population felt psychologically unhealthy, especially present in the age 18-40 (Centraal Bureau voor de Statistiek, 2021b). Therefore, over the last years, ill-being of employees has become more prevalent than their well-being. An important indicator of ill-being is psychological distress. Psychological distress is the emotional suffering that employees experience in their work (Payton, 2009). The main cause in the rise of psychological distress is COVID-19, since work arrangements changed and led to psychological challenges for employees (Centraal Bureau voor de Statistiek, 2021b; ILO, 2021). For example, job insecurity and blurred work-life balance are conditions induced by COVID-19, and cause psychological distress (ILO, 2021).

Not only for employees themselves, but also from a societal perspective it is important to strive for psychological health. Psychological health problems in the workplace cost the global economy up to US$ 1 trillion each year in lost productivity (ILO, 2021). Reducing psychological distress is therefore highly relevant, and can be accomplished through leadership (Schaufeli, 2015). As described earlier, psychological challenges induced by COVID-19 have been an important cause of psychological distress in recent years (ILO, 2021). These psychological challenges are also known as so-called job demands (Karasek, 1979). Leadership significantly decreases job demands, and as job demands decrease, so does psychological distress (Schaufeli, 2015).

The next question in this regard is what exactly in leadership causes a decrease in job demands to avoid psychological distress. The task of leaders here is to manage employees' job demands, by for example providing role clarity, providing trust and justice, and adequately manage organizational changes (Schaufeli, 2015). These tasks typically describe the leadership behavior initiating structure. Initiating structure can be defined as "attaining organizational objectives by clarifying each task's goals and monitoring work processes" (Bartsch et al., 2020, p. 73), and includes tasks such as defining task roles and role relationships among group members, coordinating group members' actions, determining standards of task performance, and ensuring group members perform up to those standards (Derue et al., 2011). Furthermore, initiating structure clarifies tasks and expectations, provides autonomy, and gives employees a

feeling of support (Lambert et al., 2012). As psychological distress is caused by job demands such as workload and role ambiguity, weak social support, and job insecurity (Marchand et al., 2005), initiating structure is particularly relevant in lowering psychological distress.

Another important characteristic of initiating structure is that it contributes to employees' perception of justice and fairness (MacKenzie et al., 2001; Tremblay et al., 2017), which makes initiating structure a facilitator of trust and fairness. The extent to which employees feel treated fairly is based on trust in their leader (MacKenzie et al., 2001). Leader trust is "a psychological state involving positive expectations about the leader's intentions or behaviors with respect to oneself in situations entailing risk" (Gao et al., 2011, p. 788). Employees' perception of justice and fairness is enhanced by the clarification of tasks and expectations (MacKenzie et al., 2001; Tremblay et al., 2017). Additionally, employees lose trust in their leader when initiating structure is lacking, because employees perceive that their supervisor does not have the willingness to satisfy the employees' needs and looks out for the employees' best interest (Lambert et al., 2012). Leader trust is based on exchange, and is therefore seen as a psychological contract (Blau, 2017; Robinson & Rousseau, 1994). Providing more rewards than costs will have mutual trust as a consequence (Deluga, 1994). As trust increases through initiating structure, this also results in positive employee outcomes, which contribute to lowering psychological distress (Chughtai et al., 2014).

The definition of leader trust showed that trust is highly relevant in situations of risk. When employees trust their leader, they feel more comfortable in situations that put them at risk (Gao et al., 2011). Risk often occurs in times of organizational change, thus trust is a powerful force in these times of organizational change (McLain & Hackman, 1999). As trust is developed in social exchange, trustworthiness can be demonstrated especially in this situation of risk and uncertainty (van Riper et al., 2016). The positive effects of leader trust might therefore be stronger in times of organizational change. Additionally, as mentioned earlier, adequately managing organizational change is a leader task that reduces job demands and therefore avoids psychological distress (Schaufeli, 2015). Initiating structure is argued to be particularly relevant in demanding environments such as organizational change, since it helps to clarify tasks for employees (Walumbwa et al., 2018). Since organizational change affects employees' psychological distress by causing feelings of psychological strain (Bordia et al., 2004), it appears to be especially relevant to initiate structure and overcome these negative feelings. Initiating structure therefore might have a stronger effect on psychological distress in times of organizational change.

Consequently, the present research will focus on the relationship between initiating structure and psychological distress, while taking into account the possible effects of leader trust and organizational change, which leads to the following research question:

To what extent does leader trust mediate the relationship between initiating structure by leaders and employees' psychological distress and to what extent is this moderated by organizational change?

The aim of this study is to contribute to research on the relationship between leadership and well-being, which results in several contributions. Firstly, this study extends the limited research on the understanding of task-oriented leadership behavior, and more specifically initiating structure, and its impact on psychological distress. This study is one of the first to consider initiating structure as important antecedent of psychological distress. This is due to the fact that task-oriented leadership behavior in its relationship to any form of employee well-being has only been researched as an additional variable, alongside change-oriented leadership behavior (Inceoglu et al., 2018).

Secondly, after a thorough literature study, it seems that the majority of leadership research has failed in taking employee well-being seriously enough, especially negative well-being (Inceoglu et al., 2018). This study therefore contributes to this knowledge by focusing on psychological distress, a negative well-being variable, and its relation to initiating structure. Initiating structure is particularly relevant since it adds to the literature a complementary perspective to transformational leadership and its relation to psychological distress (Keller, 2006). This complementary perspective of initiating structure involves providing structure in tasks that employees need, which lacks in transformational leadership behavior.

Furthermore, since this study includes a mediating variable, the third contribution underscores the mediating variable leader trust. The mediating role of leader trust on the relationship between initiating structure and psychological distress is assessed. Thus, explaining the mechanism through which initiating structure can influence psychological distress. This is particularly relevant, since mediative processes of negative well-being are understudied (Inceoglu et al., 2018).

The fourth contribution also concerns leader trust. Although trust is an often-researched mediator in the relationships between leadership and well-being, outcomes seem rather contradictory (Inceoglu et al., 2018). This contradiction can be found in the relation between leader trust and well-being, meaning that in some studies it is significantly related, while in

others it is not (Inceoglu et al., 2018). Researching leader trust in relation to initiating structure and psychological distress therefore provides insight in the behavior of leader trust in a different context.

A last contribution concerns organizational change. Whereas organizational change is shown to be a building block in order for leader trust to develop (van Riper et al., 2016; Ohemeng et al., 2019), this study explores whether it also serves a boundary condition in the relationship between initiating structure and leader trust. Additionally, this study entails whether this boundary condition also strengthens the positive results of initiating structure.

Next to theoretical contributions, this study also comes with practical contributions. Studying the effect of initiating structure on psychological distress and through which mechanisms, helps Dutch organizations finding out whether implementing this leadership style lowers psychological distress among employees. Additionally, it reveals the importance of leadership in this relationship. This is relevant for several reasons. First, when psychological distress is untreated, it can cause more serious health problems and irreversible damage (Marchand et al., 2005). It is therefore relevant for organizations to look into how psychological distress can be reduced. Secondly, psychological distress results in a huge amount of lost productivity for organizations (ILO, 2021). Investing in reducing psychological distress therefore may prevent organizations costs of lost productivity.

Furthermore, this study contributes to practice how organizations can cope with change best, since inclusion of organizational change in this study reveals whether psychological distress is particularly developed in times of change, and whether leader trust is specifically relevant in this regard. This study therefore shows whether implementing initiating structure and trust-enhancing practices lower psychological distress in times of change.

This paper is structured as follows. The first section consists of the theoretical framework of this research. The concepts initiating structure, psychological distress, leader trust, and organizational change are elaborated on. The theoretical framework ends with the conceptual model. The second section gives attention to the methodology of this research. The sample, procedure for data collection, and research ethics are described. The third section highlights the results of this study, and the last section includes the discussion and conclusion. The discussion provides a reflection on the results, theoretical and practical implications, and some recommendations for future research.

Theoretical framework

Psychological distress & initiating structure

As described in the introduction of this thesis, mental health problems are becoming more prevalent in the last years. In the introduction, COVID-19 was mentioned as a cause of this. COVID-19 is an example of the way in which the global economy can change unpredictably, and this happens continuously on large and small scale (De Vos et al., 2020). As these changes that may lead to mental health problems keep occurring, it is important to learn how to overcome these mental health problems in order to build on employee's sustainable careers (De Vos et al., 2020). Sustainable careers can be defined as "sequences of career experiences reflected through a variety of patterns of continuity over time, thereby crossing several social spaces, characterized by individual agency, herewith providing meaning to the individual" (de Vos & van der Heijden, 2015, p.7). Three factors are indicators of sustainable careers, namely happiness, productivity, and health (De Vos et al., 2020). These indicators together influence an employee's person-career fit, which is the core of sustainable careers according to De Vos et al. (2020). Happiness refers to satisfaction and career success, and more specifically, the extent to which one's career fits their own values and career goals (De Vos et al., 2020). Productivity refers to employability and career potential, and the fit of one's career with the need of organizations (De Vos et al., 2020). The last factor, health, includes both physical and mental health, and comes back to what is described in the beginning of this section, namely that mental health problems are becoming more prevalent. Mental health concerns well-being and stress (De Vos et al., 2020). This study focuses on mental health, what causes it, and how mental health problems can be reduced.

The reason for the focus on mental health has to do with its relation with the other indicators of sustainable careers, which are, as described earlier, happiness and productivity. Health is assumed to be more relevant nowadays than performance, since health seems to be a crucial building block in order to feel happiness and perform well. Health is assumed to have an impact on employee performance. When employees feel mentally healthy, their performance improves and the other way around (Wright et al., 1993). Additionally, mental health has a similar effect on happiness, meaning that when employees feel healthy, they are more likely to enjoy happiness (Phillips, 1967). Focusing on mental health is therefore assumed to be highly relevant in order to facilitate in employees' sustainable careers. To find out what exactly is mental health, the Mirowsky and Ross perspective (2003) is used, who describe that

psychological distress is the umbrella concept of mental health. Therefore, the variable that will be used in this study is *psychological distress*.

Psychological distress can be defined as "the emotional suffering experienced by individuals" (Payton, 2009). Ridner (2004) defined several attributes of psychological distress: perceived inability to cope effectively, change in emotional status, discomfort, communication of discomfort, and harm. An example of psychological distress is therefore employees experiencing stress as a consequence of changed working routines. If these feelings of psychological distress are untreated, it can cause more serious health problems, for example severe depression (Marchand et al., 2005). It is therefore highly important to reduce it. In order to do so, it is relevant to look into how psychological distress emerges.

There are two sets of work that show the emergence of psychological distress: the position of the individual in the occupational structure, and the stress or strain generated by work organization conditions experienced by an individual in his own job (Marchand et al., 2005). The first set, the position of the individual in the occupational structure, concerns that employees with a different occupational status experience different levels of psychological distress (Marchand et al., 2005). For example, senior executives and middle managers appear to experience lower levels of psychological distress than for example white-collar workers. This would mean that generally managers would experience lower levels of psychological distress than their follower employees. Also, lower levels of distress are related to higher professional prestige of socioeconomic status of an occupation (Marchand et al., 2005). The second set of factors, the stress or strain generated by work conditions that an individual experiences in his own job, concerns for example psychological and emotional demands due to workload, conflicting requests, and job insecurity (Marchand et al., 2005). This last factor seems to be particularly relevant in explaining how psychological distress emerges, as it describes that when psychological and emotional demands are too high, psychological distress occurs. This brings us to the demand-control models of Karasek (1979).

The demand-control models provide an explanation in the occurrence of psychological distress. The extent to which an employee experiences psychological distress is dependent upon the demands in a certain work situation and the range of decision-making freedom (Karasek, 1979). If the demands are too high in comparison to the freedom an employee has, he or she will experience stress. This corresponds with the theory of Marchand et al. (2005) which was just described, that showed that psychological and emotional demands can cause psychological distress. An important addition to the demand-control model comes from Karasek and Theorell (1992), namely the concept of support. Support moderates the effects that high demands have

on psychological distress (Van der Doef & Maes, 1999), meaning that as support is high, high demands are suppressed and psychological distress decreases. Support is a broad concept, and is in the regard of the demand-control model often conceptualized as support provided by one's supervisor, which is where the concept of leadership comes in.

Leadership is a form of support that can help employees in reducing feelings of psychological distress, which is why leadership behavior is argued to have a relationship with employee well-being (Inceoglu et al., 2018). Four categories of leadership behavior can be distinguished, namely task, relations, change, and passive (Inceoglu et al., 2018). Building on the demand-control-support model, leadership behavior that possibly reduces psychological distress should have some association with lowering psychological demands and providing control for employees. Additionally, employees need detailed support to overcome high psychological demands (Keller, 2006). This can be found in task-oriented leadership behavior, and more specifically in initiating structure. The second variable that is used in this study is therefore *initiating structure*.

Initiating structure is conceptualized as leadership behavior that focuses on "defining task roles and role relationships among group members, coordinating group members' actions, determining standards of task performance, and ensuring group members perform up to those standards" (Derue et al., 2011, p.16). Lambert et al. (2012) add to this definition that this form of leadership also includes clarification of tasks, providing directions, and being clear about expectations. Lambert et al. (2012) describe the mechanism of initiating structure in a sense that it can be deficient, sufficient or excessive. Namely, deficient levels of initiating structure result in a lack of necessary guidance and directions for subordinates to do the job well (Lambert et al., 2012). This may cause employees to perform badly, which threatens the need of feeling competent to do their job, and may further result in feelings of dissatisfaction and psychological distress (Lambert et al., 2012). Deficient levels of initiating structure may also negatively affect organizational commitment, since employees may feel that the employer does not place high value on preparing employees to do their job well (Lambert et al., 2012). When deficient levels of initiating structure increase to sufficient levels, job satisfaction and affective commitment should increase, and psychological distress is reduced (Lambert et al., 2012). However, there is also such a thing as excessive initiating structure. When this happens, employees find it harder to exercise autonomy and show their competence, resulting in feelings of unfavorable attitudes towards the job and the employer (Lambert et al., 2012). Additionally, this may result in feelings of distrust towards the leader (Lambert et al., 2012).

To conclude, psychological distress occurs when psychological demands are higher than control. However, in case of support by a leader, in the form of initiating structure, these feelings of psychological distress are suppressed. Therefore, when initiating structure is lacking, levels of psychological distress are assumed to be higher. When initiating structure is sufficient, levels of psychological distress are assumed to be lower. The corresponding hypothesis therefore is:

H1: Initiating structure is negatively related to psychological distress.

The mediating role of leader trust

As described in the previous section, initiating structure helps lowering psychological demands for employees and therefore reduces psychological distress. The social exchange theory (Blau, 2017) represents a valuable theoretical lens for explaining this relationship, by proposing the key role of reciprocity (Ohemeng et al., 2019). Reciprocity indicates that when one party offers a recipient a benefit, an exchange is started. If the recipient reciprocates in a way that is beneficial for the other party, an exchange occurs (Ohemeng et al., 2019). To explain this mechanism in the context of this study, firstly the initial part of the exchange relationship will be discussed, which is the offering of a benefit by one party to a recipient. When applying this to the context of this study, initiating structure is the benefit that leaders provide to employees, since initiating structure helps employees clarifying tasks, roles and performance standards. To take this a step further, the social exchange theory posits that when relationships provide more rewards than costs, enduring mutual trust and attraction is yield (Deluga, 1994), and a high-quality exchange relationship will develop (Chughtai et al., 2014). In other words: when leaders show initiating structure behavior, employees are likely to develop trust in their leader if they feel that they gain more reward from it than it costs. The third variable in this study is therefore *leader trust*.

However, trust is a complex concept, which makes it relevant to look into theories that explain how initiating structure can cause trust, next to the social exchange theory. As described earlier, initiating structure consists of several tasks, such as clarification of tasks and expectations. This is proven to contribute to employees' perception of justice and fairness (Mackenzie et al., 2001; Tremblay et al., 2017), which is highly relevant, since fair leaders are more likely to gain trust from their subordinates (Ohemeng et al., 2019). Furthermore, the

complex part of trust is also in the fact that it is more easily violated than built, because bad events are more powerful than good ones (Baumeister et al., 2001). More specifically, leader trust can be violated by supervisory incompetence, and lack of caring, and interference (Grover et al., 2014). Supervisory incompetence concerns a deficiency of explanations, instructions and goals provided by a leader. A lack of caring occurs when leaders fail to defend their subordinates. Interference concerns excessive monitoring and micro-managing by leaders. These characteristics depict a leader that demonstrate both deficient or excessive levels of initiating structure (Lambert et al., 2012). Deficient levels of initiating structure correspond with supervisory incompetence and a lack of caring, which are trust violating leadership behaviors. The same applies to excessive levels of initiating structure, which corresponds with interference, and violates leader trust.

To conclude, by exhibiting initiating structure behavior, leaders can start an exchange with an employee and may built enduring trust when employees experience more rewards, in this case in the form of initiating structure by leaders, than costs. Initiating structure furthermore helps constructing trust, since it provides feelings of justice and fairness among employees. Lastly, violating trust is often done through either lacking or excessive initiating structure behavior, meaning that sufficient initiating structure by leaders is highly relevant in order to maintain trust relationships with employees. The corresponding hypothesis therefore is:

H2: Initiating structure is positively related to leader trust.

Now that the initial part of the exchange relationship is explained, it is now the purpose to look at the second and last part of the relationship, namely that the recipient reciprocates in a way that is beneficial for the other party in order for an exchange to occur (Ohemeng et al., 2019). As trust increases when leaders initiate structure, this is likely to be reciprocated by employees in showing engagement and commitment (Ohemeng et al., 2019). The leader-employee relationship then is characterized by reciprocity. As a result, employees will feel greater trust and attraction to their leader (Chughtai et al., 2014). This will have a number of positive individual and organizational outcomes. For example, employees' work engagement will be enhanced, and they are likely to work with greater vigor, dedication and absorption, which reduces feelings of psychological distress (Chughtai et al., 2014).

In conclusion, trust is reciprocated by employees in terms of commitment and engagement. This reciprocity will increase trust and therefore has several positive outcomes which reduce psychological distress. The corresponding hypothesis therefore is:

H3: Leader trust is negatively related to psychological distress.

So far, it is expected that there is a relationship between initiating structure and leader trust, and between leader trust and psychological distress. This implies an indirect relationship between initiating structure and psychological distress through leader trust. The hypothesis corresponding to this relationship therefore is:

H4: The relationship between initiating structure and psychological distress is mediated by leader trust.

The moderating role of organizational change

The next step in explaining leader trust concerns the circumstances under which it is built. For trust to be developed, two conditions need to be fulfilled: interdependence, and risk and uncertainty related to the situation or the action to be taken (Ohemeng et al., 2019). Interdependence means that trust can only be built when there is a certain level of dependency between the leader and employee. Risk and uncertainty serve as a sort of situational conditions in which trust can be explicitly shown (Van Riper et al., 2016). When employees trust their leader, they are more willing to take risks (Ohemeng et al., 2019). Interdependency is assumed to be automatically present in a leader-follower relationship, but risk and uncertainty is a less obvious concept. To uncover causes of feelings of uncertainty and risk, the context of employees, and how this changes, matters. The context of employees is therefore captured in the last variable of this study, namely *organizational change*.

Organizational change can be viewed from several levels, namely work group level, organizational level, and institutional level (De Vos et al., 2020). At the group level, change can affect job demands and job resources, such as changed work load. At the organizational level, change can occur due to changes in HR-policies, for example changed working conditions related to work location, like working from home. At the institutional level, change can occur when technological changes affect job tasks, like digitalization of specific job tasks. Changes in all these levels affect a number of employee outcomes, such as psychological distress, but most of all feelings of uncertainty and risk (Bordia et al., 2004).

The social exchange theory helps to explain how these feelings of risk and uncertainty relate to leader trust, since an exchange results in enduring trust. When employees feel like they can trust their leader, they will feel more comfortable and are willing to take risks, and risk especially occurs in times of organizational change (Gao et al., 2011; Bordia et al., 2004). Additionally, risk increases feelings of vulnerability of employees (Chughtai et al., 2014), and as vulnerability increases, trust becomes more important. Vulnerability represents a level of dependency on a leader, and since dependency is a condition for trust (Ohemeng et al., 2019), trust and vulnerability are interrelated. As leader trust increases, employees are more likely to overcome feelings of vulnerability. Furthermore, initiating structure is particularly relevant in times of uncertainty, since it provides guidance that employees need in times of change (Ohemeng et al., 2019).

To conclude, trust will be developed particularly in times of organizational change, since changes raise feelings of risk and uncertainty among employees. As trust increases, employees are more willing to take risks. This risk in turn causes feelings of vulnerability, which is when trust is more prevalent, since it helps overcoming vulnerability. Therefore, it is expected that organizational change will strengthen the effect that leader trust has on the relationship between initiating structure and psychological distress. This leads to the following hypothesis:

H5: The negative indirect relationship between initiating structure and psychological distress through leader trust will be stronger when employees experience organizational change.

Additionally, organizational change is also expected to have an effect on the direct relationship between initiating structure and psychological distress. Since changes are so prevalent and encompassing, it is highly relevant for organizations to understand how to manage changes in order to preserve positive employee outcomes, and prevent the negative ones. Especially since leader behavior is crucial for how employees will feel in the context of various organizational changes (Inceoglu et al., 2018). Employees may develop concerns about their ability to perform when changes in their working context happen (Bryson et al., 2004). As described, psychological distress is more likely to occur when employees experience risk and uncertainty as a result of organizational change. Initiating structure is particularly relevant in this regard, since the clarification of tasks for employees is highly relevant in such demanding environments (Walumbwa et al., 2018). Initiating structure is therefore argued to be extra helpful in reducing distress when employees experience organizational change. The direct relationship between

initiating structure and psychological distress is thus expected to be stronger in times of organizational change. This leads to the following hypothesis:

H6: The negative relationship between initiating structure and psychological distress will be stronger when employees experience organizational change.

Conceptual framework

By testing the six hypotheses, this study examines the relationships between initiating structure and psychological distress mediated by leader trust and moderated by psychological distress (see figure 1).

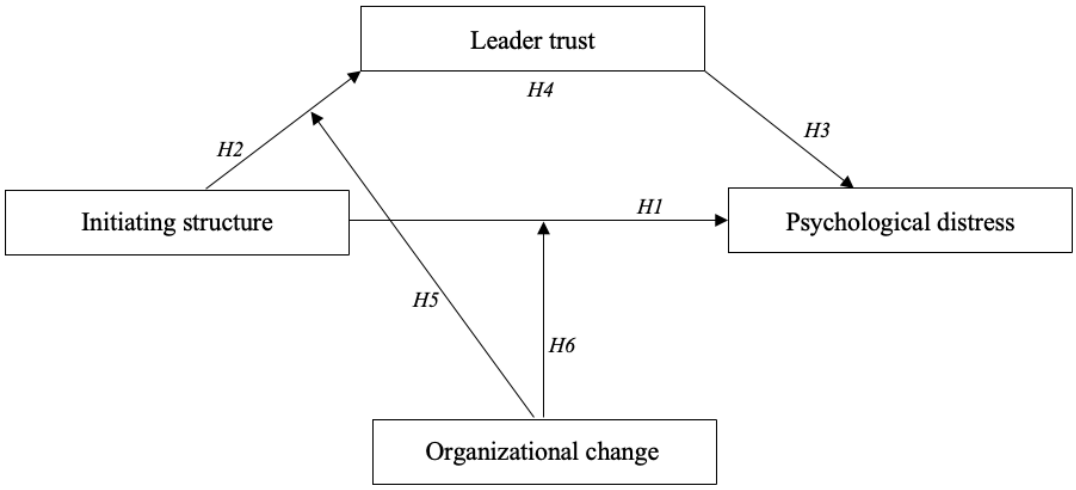

Figure 1. Conceptual framework

Methodology

Research design

This research investigated the effect of initiating structure by leaders on employees' psychological distress, in combination with the mediating effect of leader trust and the moderating effect of organizational change. This was done by developing and testing a conceptual model, which is shown in figure 1. This research was conducted through a correlational study. There was no control over the variables that are measured, as is the case in experimental studies, therefore the variables were measured in an explorative manner (Bethlehem, 1999). Furthermore, the measures in this study are quantitative, so qualitative methods, such as field experiment, were not suitable to use (Sekaran & Bougie, 2016). A cross-sectional survey was used to measure the variables, during 2 weeks at the end of April and beginning of May 2022. This form of research was chosen, since the time given for this study provided the opportunity to conduct the survey once, which means that a longitudinal study was not doable. Furthermore, an online survey was conducted, since it was considered to be the appropriate method to be used in this study. This is due to the fact that the data needed to be collected in a limited time frame (Sekaran & Bougie, 2016). In addition, an online survey is the fastest way to collect data, and therefore appropriate when there is a limited time frame (Schillewaert et al., 1998). Qualtrics, an online questionnaire program, was used to make the questionnaires, and the questionnaires were distributed among respondents by e-mail.

This study is dyadic, consisting of distinguishable dyads (Kenny et al., 2006). This form of research was chosen, since the variables concern both leaders and employees. Dyadic research gives insight in both the perceptions of the leader and of the employee. This is a form of data source triangulation, since the data is obtained from two different sources. An important advantage of data source triangulation is that it provides the potential to identify similar patterns, or that it possibly reveals atypical data, hence increases confidence in the findings (Thurmond, 2001). Although there was a risk of rater bias among the supervisor ratings (van der Heijde & van der Heijden, 2006), it was still desired to get an insight in the perceptions of both the employee and supervisor, since potential similarities and differences might be interesting. Furthermore, the leniency effect was known to be suppressed, since self-ratings appear to be more reliable when supervisors are aware that their subordinate also rates them (Mabe & West, 1982). Since in dyadic research both the leaders and employees are included, two questionnaires were developed. Some variables mainly concerned perceptions of employees, such as employees' psychological distress, leader trust, and organizational change.

The variable that concerned the leadership style initiating structure was rated both by the leader and the employee. The leader and employee filled in the questionnaire independently, and anonymity was preserved by describing in the introduction of the questionnaire that the dyadic partner was not able to see their partner's answers. Before sending the questionnaire to the respondents, it was sent to test persons, which resulted in a few tips. After adjusting, the questionnaire was ready to send to respondents.

The survey was conducted by five researchers, who all were responsible for collecting 15 to 20 dyads. Every student approached possible respondents separately based upon their own network. Collecting the data in a team made it easier to collect a sufficient number of respondents. Furthermore, collecting data in a team resulted in respondents outside of one's own network. This reduced the possible bias in the data when it consists of respondents from only one researcher's network. The only requirement for selecting respondents was that they had a job and a leader who was willing to participate. The sampling technique that was used is therefore non-probability sampling. The sample was selected via self-selection, volunteer sampling and snowball sampling. This was an appropriate sampling method, because this gave the researchers opportunity to gain a sufficient number of respondents while their network is still limited as young professionals. Furthermore, since there was no budget available for this study, non-probability sampling was an appropriate method (Schillewaert et al., 1998). Once the respondents agreed on participating with their leader or employee, they were added to a contact base. The questionnaires were sent to the respondents in the contact base and they could fill in the questionnaire by using a code similar to their leader or employee, which enabled the researchers to connect the employees to the corresponding leaders. The aim was to obtain a diverse sample as possible, meaning that unique dyads were targeted. However, to gain sufficient number of respondents, some employee respondents have the same leader.

Ethical considerations

To take ethical considerations into account in this research design, some measures were taken. Firstly, participation in this study was voluntarily. This means that potential respondents who were approached have the autonomy to determine whether they wanted to participate in this study, and to withdraw whenever desired. Ensuring voluntary participation is in line with APA's Five principles for research ethics (Smith, 2003). In addition, the informed-consent rules of APA were used in order to ensure research ethics in the data gathering process (Smith, 2003).

This means that participants were informed about the following subjects: the purpose of the study, duration and procedures, withdrawing whenever desired, potential discomfort, research benefits, data coding process, incentives for participation and contact information they could consult whenever they had questions (Smith, 2003). The participants were informed through invitation and participation e-mails (appendix 1 and 2), and in the questionnaire itself (available on request). Particularly assured anonymity was considered to be important, since the study was dyadic, meaning that subordinates might have had the tendency to adjust answers when knowing that their supervisor answers the same questions and the other way around. Also, the questionnaire contained sensitive subjects which may otherwise cause a bias in the data.

Furthermore, practical implications of the results had an influence on practice by providing insight in the relationship between initiating structure, psychological distress, leader trust, and organizational change. The results of this research did not have negative consequences for supervisors and employees, nor their organization, since they were anonymous and thus also the organization they work for was unknown. Therefore, no additional measures were needed to secure research ethics.

Lastly, the role of the researcher is given a thought in order to determine its possible effect on the results of the research. However, reflexivity is more prevalent in qualitative research than in quantitative, since it concerns how the researcher constructs knowledge from the research process (Guillemin & Gillam, 2004). Translating this to this research process, the role as a researcher might have influenced the data that was gathered, since this was based upon the researcher's own network, meaning that the data might not be representative for the whole population.

Description of the sample

The data collection resulted in a sample of 125 dyads, of which 78 are unique. This means that 78 leaders participated and 125 employees. The questionnaire was sent to 121 leaders and 167 employees. In total, 96 leaders and 137 employees filled in the questionnaire, meaning that there is a response rate of 79.3% among leaders and 82.0% among employees respectively. Additionally, some responses could not be used in the actual sample, because they were incomplete. Some responses were only filled in by one part of the dyad, meaning that their leader or employee did not fill in the questionnaire. Other responses were not filled in completely. These responses were deleted from the sample.

Of the final sample of the leaders, 48.7% was female and 96.2% had a Dutch nationality. The average age of the leaders was 45.9 years old (*SD*=11.7) and their work experience as a leader was on average 14.8 years (*SD*=11.5). About 51% of them is educated on higher vocational education level (HBO), and a major part of them (44%) works in large organizations (500 or more employees). Most of the leaders work in the health sector (20.5%) and business and service sector (42.3%). A short overview is shown in table 1.

Of the final sample of the employees, 60.8% was female and 94.4% had a Dutch nationality. The average age of the employees was 37.2 years old (*SD*=14.4). About 25% of them finished secondary vocational education (MBO), 37% of them finished higher vocational education (HBO). 30.4% works in the health sector, 30.4% in the business and service sector. On average, employees work 30.6 hours per week (*SD*=12.1). A short overview is shown in table 1.

Table 1. Demographic statistics of the sample

	Sample leaders N=78	*Sample employees N=125*
Age	45.9 (*SD*= 11.7)	37.2 (*SD*= 14.4)
Work experience as a leader	14.8 years (*SD*= 11.5)	NA
Working hours	NA	30.6 (*SD*= 12.1)
Nationality		
Dutch	96.2%	94.4%
Gender (women)	48.7%	60.8%
Education		
MBO	9.0%	24.8%
HBO	51.3%	36.8%
University Master	26.9%	16.8%
Size organization		NA
1 – 49	33.3%	
50 – 249	12.8%	
250 – 499	12.8%	
500+	41%	
Sector		
Health	20.5%	24%
Business & service	42.3%	30.4%

Description of the measures

The measures in this research concern the variables *employee-rated initiating structure, difference score for initiating structure*, *psychological distress*, *leader trust*, and *organizational change*. For each of these measures, several scale items were included in the survey. Multi-item measurement was conducted, since this increases reliability and validity of the measures (Hair et al., 2018). For the sake of different perspectives, it is usually preferred to use objective and subjective measures (Borman, 1974). However, the variables in this study were all about perceptions of respondents. Therefore, subjective measures were most appropriate to use here. In order to include different perspectives in the study, the dyads were used. Initiating structure was the variable that was measured both at employee and leader level. To determine whether the inclusion of leaders added value, the Interclass Correlation Coefficient (ICC) was calculated using the programme MPlus. This showed that for the outcome variable, *psychological distress*, the ICC is .344, meaning that 34.4% of the variance is explained by including the leader in the analysis. However, this also means that 65.6% of the variance is explained by including only the employee. Also, the mediating variable, *leader trust*, showed a comparable ICC with .423. The main focus is therefore on the perceptions of employees, meaning that the central analysis will include *employee-rated initiating structure*. However, since a substantial variance in the outcome variable is explained by including the leader, an additional analysis is done which included the *difference score for initiating structure*, meaning that *employee-rated initiating structure* is subtracted from *leader-rated initiating structure*.

Existing literature was reviewed to identify scales for the variables. The measures were validated to ensure construct validity, and this was done by performing factor analysis, accounting for discriminant validity and convergent validity (Hair et al., 2018). The factor analysis showed whether there was consistency between the items. The choice was made to do the factor analysis for each factor separately, since the variables *employee-rated initiating structure* and *leader-rated initiating structure* overlapped, which resulted in cross-loadings and low communalities. Additionally, the factor analysis was confirmatory, so the numbers of factors and corresponding items were determined a priori. Furthermore, values for Bartlett's test of sphericity and KMO were checked. KMO values vary from 0 to 1 and should be above 0.6 to in order to adequately represent the population (Hair et al., 2018). Bartlett's test of sphericity should be significant in order to assure correlations between the items (p <.05) (Hair et al., 2018). After the factor analysis, the reliability analysis was done to check Cronbach's alpha, which should be .7 or higher (Hair et al., 2018). Additionally, it was checked whether the value of Cronbach's alpha was higher if an item was deleted. Furthermore, all items were

only available in English and were translated to Dutch through direct translation. The outcomes of the analyses are discussed in the following sections.

Employee-rated initiating structure: To measure initiating structure the scale of Schriesheim & Stogdill (1975) was used. This scale consisted of 10 items, and was based on a 5-point scale ranging from 1 (strongly disagree) to 5 (strongly agree). Employees were asked to indicate the extent to which they identify the behaviours described in the items in their leaders. An example of an item measuring initiating structure is: "*My supervisor lets group members know what is expected of them*". The factor analysis showed an explained variance of 39.22%, and KMO (.825) and Bartlett's test of sphericity (p=.000) were sufficient. Additionally, four items showed low communalities. However, since this variable is used to calculate the *difference score for initiating structure*, no items were deleted from this variable. Furthermore, Cronbach's alpha was .814, and deleting items did not result in a higher Cronbach's alpha.

Difference score for initiating structure: As described earlier, this variable is calculated by subtracting *employee-rated initiating structure* from *leader-rated initiating structure*. The measure for *employee-rated initiating structure* was just described, and to measure *leader-rated initiating structure*, the same scale was used. So also in this case, the scale consisted of 10 items, and was based on a 5-point scale ranging from 1 (strongly disagree) to 5 (strongly agree). Leaders were asked to indicate the extent to which they exhibit the behaviours described in the items. An example of such an item was: *"I let my group members know what is expected of them".* The factor analysis resulted in explained variance of 36.18%, and KMO (.729) and Bartlett's test of sphericity (p=.000) were sufficient. Additionally, three items showed low communalities. Also here, since this variable was used to calculate the difference score, no items were deleted from the variable. Furthermore, Cronbach's alpha was .779, and deleting items did not result in a higher Cronbach's alpha.

Psychological distress: To measure psychological distress the Patient Health Questionnaire for depression and anxiety was used (PHQ-4) (Kroenke et al., 2009). This scale consisted of 4 items, and was based on a 4-point scale ranging from 0 (not at all) to 3 (nearly every day). Employees were asked to indicate the extent to which they suffered for certain mental problems over the last two weeks. An example of an item measuring psychological distress is: "*Feeling nervous, anxious or on edge*". The factor analysis showed a sufficient

KMO-score (.604) and Bartlett's test of sphericity was significant (p=.000). Additionally, the explained variance was 49.82%. Furthermore, the reliability analysis showed Cronbach's alpha of .658, and deletion of an item did not result in a higher Cronbach's alpha.

Leader trust: To measure leader trust the scale of Giessner & van Knippenberg (2008) was used. This scale consisted of 3 items, and is based on a 7-point scale ranging from 1 (totally disagree) to 7 (totally agree). Employees were asked to indicate the extent to which they trust their leader. An example of an item measuring leader trust is: "*I think that this leader is trustworthy*". The factor analysis showed a sufficient KMO-score (.751) and Bartlett's test of sphericity was significant (p=.000). Additionally, the explained variance was 89.95%. Furthermore, the reliability analysis showed Cronbach's alpha of .942, and deleting an item did not result in a higher Cronbach's alpha.

Organizational change: To measure organizational change the scale of Rafferty & Griffin (2006) was used. This scale consisted of 4 items, and is based on a 7-point scale ranging from 1 (not at all) to 7 (a great deal). Employees were asked to indicate the extent to which they experience uncertainty as a consequence of change. The factor analysis showed a sufficient KMO-score (.743), a significant Bartlett's test of sphericity (p=.000), and an explained variance of 67.8%. However, one item showed a low communality (.088) and a low factor loading (.297). This item was: "*My work environment is changing in an unpredictable manner"*. Additionally, the reliability analysis showed a Cronbach's alpha of .795, but after deletion of this specific item, Cronbach's alpha increased to .918. This item was therefore compared to the other three items, namely: *"I am often unsure about how to respond to change", "I am often unsure about the effect of change on my work unit",* and *"I am often unsure how severely a change will affect my work unit"*. The choice was made to delete the item, since that item concerned the actual situation, while the other three items concerned feelings of unsureness and are more about perception. The factor analysis was therefore executed again with the three items that were left. This analysis showed a sufficient KMO-score (.724), a significant Bartlett's test of sphericity (p=.000), and an explained variance of 86.27%.

Control variables: This study controlled for age of employees and gender of leaders. Control variables are included in this study since they are proven to provide more accurate estimates of leadership effects (Bernerth et al., 2017). It was important to only include control variables that make sense, meaning that a convincing justification is necessary prior to the study

(Bernerth et al., 2017). Age of employees is proven to be related to psychological distress, in a way that it is more prevalent among young adults (Jorm et al., 2005), and is therefore included in this study. Age was measured with an open-ended item. Furthermore, leader gender is related to trust, in a way that trust is higher when the leader is a woman (Flavián et al., 2022). Gender was measured with a nominal scale, wherein 1=male, 2=female, 3=non-binary, 4=different, 5=prefer not to say. However, the results showed that only the answer options "male" and "female" were filled in.

Analytical procedure

After the data was collected, it was downloaded from Qualtrics. Subsequently, the data was cleaned and the remaining data set was analysed. The data was statistically analysed with the program IBM SPSS Statistics 27 including PROCESS by Hayes (2022). As mentioned, the first step of the data analysis consisted of data cleaning and preparation for the analyses, by checking for missing data, outliers and assessing the reliability of all measures. The missing data was inspected via frequency analyses. The questions in the questionnaire were mandatory in order to complete the questionnaire, therefore, missing values were impossible. Outliers were possible and checked through boxplots. The outliers that were found were checked and answers seemed legit, which is why the cases were retained in the data. As mentioned in the description of the measures, to assure construct validity factor analysis was done for all scales. Additionally, internal consistency of each scale was checked by computing Cronbach's alpha and comparing it to threshold of .7. Furthermore, the Interclass Correlation Coefficient was calculated in order to determine the variance that is explained by including the supervisor ratings in the analysis, which is described in the measurement scale of initiating structure.
In the second step, we assessed correlations among all study variables.

The third and last step consists of hypothesis testing. Before testing the hypotheses, the variables were transformed into new variables, so that they could be used in the regression analysis. These transformations concerned computing the mean of the items for each variable. Since the variable initiating structure was measured both at the employee and leader level, a difference score was computed to include the dyad in the analysis. A difference score is relevant here, since the dyad is distinguishable (Kenny et al., 2006). Including a difference score in the regression analysis provided insight in whether greater differences in perceptions of initiating structure significantly influences leader trust and psychological distress.

Preliminary analysis was done to check the assumptions of linear regression (linearity, independence of the residuals, homoscedasticity, multicollinearity, and normality) (Hair et al., 2018). To assess linearity and normality, skewness and kurtosis were checked for each variable. If these values fell into the range of -1 and +1, the assumption was not violated (Hair et al., 2018). The variable leader trust scored too high on kurtosis (4.931), and too high on skewness (-1.846). This variable is therefore transformed to reduce both of these scores. After transformation, the kurtosis was -1.098 and skewness was .389. The independence of the error term is checked by the Durbin-Watson score. If Durbin-Watson scored between 1.5 and 2.5, the assumption is not violated (Field, 2018). This score was 1.852, therefore no violation was identified. Homoscedasticity means that residuals are constant across the range of the independent variable (Hair et al., 2018), and is checked through a scatterplot of the residuals. This indicated that the residuals are heteroscedastic, meaning that the assumption is violated. To overcome this, heteroscedasticity-consistent standard errors (HCSE) were used in the regression analysis (Hair et al., 2018). Multicollinearity means that the independent variables do not correlate too much with each other (Hair et al., 2018). To assure this, the VIF and tolerance values were checked. The tolerance should be higher than .10, and the VIF lower than 10 in order to not violate the assumption (Hair et al., 2018). The lowest tolerance value was .493, and the highest VIF was 2.028. Therefore, the assumption was not violated.

Subsequently, the hypotheses were tested using a regression-based analyses performed via PROCESS macro for SPSS (Hayes, 2022). In this study, the model 4 and model 8 were used to test hypotheses. Relations were considered significant if p-value was smaller than .05. Since the data included non-unique dyads, an additional test was done to reflect the effects of possible nestedness of the data. This was done by testing the hypotheses using a path analysis in MPlus, which allowed for simultaneous estimation of different regression equations.

Results

Correlations

Table 2 contains the correlations, means, and standard deviations of the variables and the control variables. To assess correlations between the variables e*mployee-rated initiating structure*, *difference score for initiating structure*, *leader trust*, *organizational change*, *psychological distress*, *age of employees*, and *gender of leaders*, Pearson's correlation coefficient was used. The correlation is small when the coefficient is ±.1, medium when the coefficient is ±.3 and high when the coefficient is ±.5 (Field, 2018). Table 2 shows that *employee-rated initiating structure* and the *difference score for initiating structure* are strongly negatively correlated (r=-.66, p<.01). *Employee-rated initiating structure* is significantly and strongly correlated with *leader trust* (r=.51, p<.01). The *difference score for initiating structure* has a significant moderate negative correlation with *leader trust* (r=-.41, p<.01). Furthermore, *psychological distress* has a significantly moderate correlation with *organizational change* (r=.25, p<.01). Additionally, the control variables also have some significant correlations. *Age of employees* has a small significant correlation with *employee-rated initiating structure* (r=-.20, p<.05) and a moderate significant correlation with *psychological distress* (r=-.29, p<.05). *Gender of leaders* has a small significant correlation with *employee-rated initiating structure* (r=.20, p<.05), *difference score for initiating structure* (r=-.20, p<.05), and a moderate significant correlation with *leader trust* (r=.27, p<.01). These significant correlations of the control variables indicate that they have an influence on the main variables.

Table 2. Correlations, means and standard deviations

Variables	*mean*	*SD*	*1.*	*2.*	*3.*	*4.*	*5.*	*6.*	*7.*
1. Employee-rated initiating structure	3.63	.52	1						
2. Difference score initiating structure	-.077	.62	-.66**	1					
3. Psychological distress	1.36	.37	.01	-.07	1				
4. Leader trust	.61	.26	.51**	-.41**	-.15	1			
5. Organizational change	2.55	1.30	-.13	.05	.25**	-.15	1		
6. Age of employees	37.15	14.37	-.20*	.04	-.29**	-.11	-.10	1	
7. Gender of leaders	1.44	.50	.20*	-.20*	.13	.27**	-.03	-.20*	1

N=125
* p<.05 ** p<.01

Direct effects

Hypothesis 1 included the direct effect of this research, namely that *initiating struct*ure is negatively related to *psychological distress*. As can be seen in table 3, this effect is not significant (*B*=.04, *p*=.73). Hypothesis 1 is therefore rejected. Hypothesis 2 stated that *initiating structure* is positively related to *leader trust* and is accepted. Table 4 shows that this effect is positive and significant (*B*=.33, *p*=.00). Furthermore, the control variable *gender of supervisor* also has a significant positive effect on *leader trust* (*B*=.09, *p*=.04), meaning that leader trust is higher in case of female leaders than male leaders. Hypothesis 3 stated that *leader trust* is negatively related to *psychological distress* and is also accepted. The effect is negative and significant (*B*=-.30, *p*=.04). Furthermore, the control variable *age of employees* shows a significant negative effect on *psychological distress* (*B*=-.01, *p*=.00), meaning that the older the employees, the lower their psychological distress is.

Table 3. Dependent variable model

Predictor	*Coefficient*	*Se*	*p*
Constant	1.35**	.44	.0030
Employee-rated initiating structure	.04	.12	.7342
Leader trust	-.30*	.14	.0356
Organizational change	.05	.18	.7721
Employee-rated initiating structure x organizational change	.00	.05	.9693
Gender of supervisor	.09	.07	.1876
Age of employees	-.01**	.00	.0017

N=125
* p<.05 **p<.01

Table 4. Mediator variable model with dependent variable leader trust

Predictor	*Coefficient*	*Se*	*p*
Constant	-.66*	.28	.0202
Employee-rated initiating structure	.33**	.07	.0000
Organizational change	.13	.11	.2420
Employee-rated initiating structure x organizational change	-.04	.03	.1655

Gender of supervisor	.09*	.04	.0358
Age of employees	.00	.00	.9150

N=125
* p<.05 **p<.01

Mediated effects

Hypothesis 4 consisted of the mediation effect, and assumed that *leader trust* mediates the relationship between *initiating structure* and *psychological distress*. This hypothesis is checked by the conditional indirect effects of *initiating structure* on *psychological distress* mediated by *leader trust* at different levels of *organizational change*. This shows different values of the moderator, namely the mean and plus and minus one standard deviation. The significance levels of the effects were checked by using bootstrapped confidence intervals. Zero should not be included in the 95% bootstrap interval in order to be significant. Since zero was included in the bootstrap interval for each level of *organizational change, leader trust* mediates the relationship between *initiating structure* and *psychological distress* at each level of *organizational change*. Hypothesis 4 is therefore accepted.

This mediation can also be tested by using model 4 in PROCESS, in which the interaction effect is not included (see appendix 3). This analysis showed identical results in accepting hypotheses. *Initiating structure* is positively and significantly related to *leader trust* (*B*=.24, *p*=.00) (hypothesis 2). *Leader trust* is negatively and significantly related to *psychological distress* (*B*=-.33, *p*=.02) (hypothesis 3). The direct effect of *initiating structure* on *psychological distress* is also not significant here (*B*=.03, *p*=.63) (hypothesis 1). Next to the direct effect, we look at the total and indirect effect of *initiating structure* on *psychological distress* to uncover the type of mediation effect. The total effect is not significant (*B*=-.05, *p*=.39), see table 5. The indirect effect of *initiating structure* on *psychological distress* was analysed by using bootstrapped confidence intervals, shown in table 6. Zero should not be included in the 95% bootstrap interval in order to be significant. The results show that the indirect effect of *initiating structure* on *psychological distress* through *leader trust* is significant (*B*=-.0792, *SE*=.0362, 95% *CI*=-.1564, -.0136). Non-significance of the total and direct effect, and significance of the indirect effect means that there is full mediation. In terms of the variables this means that there is only an effect between *initiating structure* and *psychological distress* through *leader trust*.

Table 5. Total effect of initiating structure on psychological distress

Coefficient	*Se*	*p*	*LLCI*	*ULCI*
-.0487	.0566	.3914	-.1607	-.0634

Table 6. Indirect effect of initiating structure on psychological distress through leader trust

Coefficient	*BootSE*	*BootLLCI*	*BootULCI*
-.0792	.0362	-.1564	-.0136

Moderated effects

The moderation effect is described in hypothesis 6, namely that *organizational change* moderates the relationship between *initiating structure* and *psychological distress*, in such a way that *psychological distress* is higher when perceived *organizational change* is high. In order to accept this hypothesis, the interaction effect in table 3 (*initiating structure* x *organizational change*) should be significant, which is not the case (*B*=.00, *p*=.97). Hypothesis 6 therefore will be rejected. Hypothesis 5 also concerned a moderation effect, but then on the mediated relationship. The relationship between *initiating structure* and *psychological distress* through *leader trust* was expected to be stronger when perceived *organizational change* is high. Table 4 shows that this effect is not significant (*B*=-.04, *p*=.17), and therefore this hypothesis will be rejected.

Table 7 shows the moderation effect on the direct relationship between *initiating structure* and *psychological distress*, by providing significance for different levels of *organizational change*. The lowest level (*B*=.04, *p*=.55), average level (*B*=.05, *p*=.50), and highest level (*B*=.05, *p*=.67) were all not significant. This indicates that there is no moderation on the direct relationship between *initiating structure* and *psychological distress*. Table 8 shows the index of moderated mediation, meaning that it indicates whether the complete indirect effect (*initiating structure* → *leader trust* → *psychological distress*) is moderated by *organizational change*. The significance levels of the effects were checked by using bootstrapped confidence intervals. Zero then should not be included in the 95% bootstrap interval. Since zero is in this interval, we can conclude that there is no moderated mediation. Figure 2 shows the results in a statistical diagram.

Table 7. Conditional direct effects of employee-rated initiating structure on psychological distress at different levels of organizational change

Organizational change	*Coefficient*	*Se*	*p*	*LLCI*	*ULCI*
1.2471	.0434	.0720	.5475	-.0991	.1860
2.5467	.0460	.0673	.4952	-.0872	.1793
3.8462	.0487	.1143	.6712	-.1778	.2751

Table 8. Index of moderated mediation

Index	*BootSE*	*BootLLCI*	*BootULCI*
.0127	.0110	-.0037	.0379

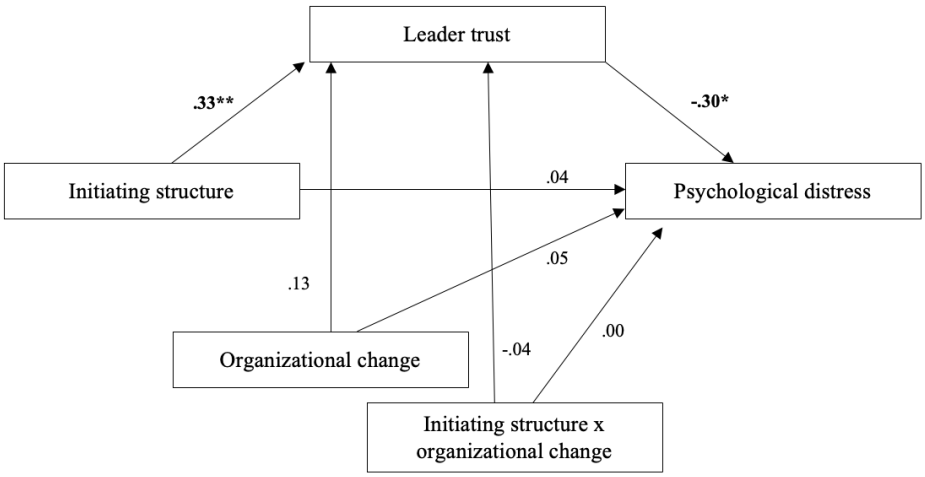

Figure 2. Results in statistical diagram

Additional analyses

Two additional analyses have been executed. The first one is the regression analysis in PROCESS model 8 in which the *difference score for initiating structure* (supervisor score – employee score) is included instead of the *employee-rated initiating structure*. This is a relevant analysis, since the ICC (Interclass Correlation Coefficient) showed that including the dyad in the analysis explained about 34% of the variance of the outcome variable *psychological distress*, as described earlier. The outcomes of the regression analysis in PROCESS can be found in appendix 4. There are some important differences in results when this difference score is included. First of all, the direction of the significant relationship between *initiating structure* and *leader trust* changed from positive to negative (*B*=-.26, *p*=.00). This indicates that as

leaders rate their initiating structure behaviour higher against *employee-rated initiating structure*, the lower *leader trust* is.

Furthermore, the conditional indirect effects of the *difference score on initiating structure* and *psychological distress* through *leader trust* were checked. The significance levels of the effects were checked by using bootstrapped confidence intervals. Zero should not be included in the 95% bootstrap interval in order to be significant. For average and lower levels of *organizational change*, this effect is subject to moderation. For low levels of *organizational change* this effect is *B*=.0682, 95% *CI*=.0149, .1287, and for average levels of *organizational change* this effect is *B*=.0484, 95% *CI*=.0096, .0982. For high levels of *organizational change,* the effect is not significant *B*=.0286, 95% *CI*=-.0045, .0845. However, the index of moderated moderation does not show significant moderation (*B*=-.0152, 95% *CI*=-.0375, .0016), and therefore we can conclude that also in this analysis, the moderation effect is non-significant. Lastly, although not hypothesized in this study, organizational change has a significant effect on psychological distress (*B*=.06, *p*=.02).

The second additional analysis was to check whether the fact that not all dyads are unique had an influence on the analysis. The data was nested, because some of the participants have the same leader (non-unique). Therefore, an additional test of the hypotheses was provided by means of a sandwich estimator (i.e. Type = Complex in MPlus). This estimator corrects the standard errors to reflect the effects of the nestedness. The hypothesized model was tested by a path analysis in MPlus, which allows for simultaneous estimation of different regression equations. The results of the analyses in SPSS were confirmed with this additional test, since parameter estimates were almost identical.

Discussion

Reflection on results and theoretical contribution

This study was aimed at investigating whether initiating structure by leaders results in lower psychological distress directly and/or through leader trust, and whether this direct and/or mediated relationship is influenced by organizational change in the form of a moderation effect.

Firstly, it was expected that initiating structure would lead to lower levels of psychological distress. The results of this research indicate that these two are not directly related to each other, but through the mediator leader trust. This is contradictory to the theory of Karasek & Theorell (1992) and Lambert et al. (2012) wherein low initiating structure would strengthen feelings of psychological distress, which is substantiated in the basic premises of the job demand-control-support model (Karasek, 1979). This theory entails that support from leaders moderates the effects of high demands that an employee experiences, meaning that as support is high, the effects of high demands on psychological distress are suppressed. Herein support represents initiating structure by leaders. This contributes to the literature an insight in effects of solely the task-oriented leadership behavior initiating structure, namely that it is not significantly related to psychological distress. Furthermore, an important note comes from Lambert et al. (2012), who describe not only the concept of lacking initiating structure, but also excessive initiating structure. This would mean that there might possibly be a curvilinear relationship, which was out of the scope of this research.

Secondly, initiating structure appeared to positively affect leader trust. This confirms the theory of Grover et al. (2014), in which absence of initiating structure behavior is shown to violate leader trust. Therefore, the more present initiating structure is in a leader-follower relationship, the higher leader trust is. Leader trust in turn appeared to have a negative influence on psychological distress, meaning that as leader trust increases, psychological distress decreases. This is in line with Chughtai et al. (2014), who describe that greater leader trust reduces feelings of distress. The mediation that was therefore expected by theory was also apparent in the results of this study. Initiating structure increases leader trust, in line with Grover et al. (2014), and in turn leader trust reduces distress, as suggested by Chughtai et al. (2014). This study therefore extends these theories by introducing a mechanism through which initiating structure is related to psychological distress. Furthermore, it adds to theory a new context in which leader trust is shown as significant mediator. Lastly, this study shows the importance of the perception of initiating structure by employees. The difference score for initiating structure showed that the higher leader-rated initiating structure was against

employee-rated structure, the lower leader trust. This means that when leaders feel that they highly initiate structure, while employees feel that their leaders show lower levels of initiate structure, leader trust is lower.

Thirdly, organizational change was expected to strengthen the relationship between initiating structure and leader trust, but this was not evident from this study. This is contradictory to the theories of Ohemeng et al. (2019) and van Riper et al. (2016), who describe that trust can especially be shown in times of risk and uncertainty, wherein perceived organizational change serves as an uncertain situation. Furthermore, organizational change was also expected to have a strengthening effect on the direct relationship between initiating structure and psychological distress, but this effect was also not apparent in this study. This contradicts research of Walumbwa et al. (2018) and Bordia et al. (2004), who describe that initiating structure is particularly relevant in demanding environments like organizational change, since they cause feelings of psychological strain. This adds to literature that perceived organizational change does not seem to be a boundary condition for trust to be developed in this context. Also, psychological distress is not particularly suppressed by initiating structure in times of organizational change.

The fact that the moderating effects of organizational change were not significant in this study might come from some alternative explanations. First of all, it can be due to methodological reasons and caused by the scales used for organizational change and leader trust. The scale for organizational change contained items that solely concerned feelings of uncertainty, instead of the actual presence of organizational change. This might have led to low perceptions of organizational change, while the actual situation showed high levels of organizational change, which may lead to different outcomes.

The fact that respondents did not experience high levels of uncertainty due to change can have several explanations. There might be a response bias, for example social desirability, but often anonymity is a solution to overcome this bias (Paulhus, 1991). Since anonymity is highly assured in this study, this explanation seems unlikely. Another response bias might be order effect, which means that the relative position of an item might influence the way respondents react to it (Perreault, 1975). The items of organizational change were positioned after three items that measured whether employees can easily switch employer, which contained items like "*I have great chance finding another job, if I would search one"* and *"I am convinced that I can find a job at another employer quickly if I wanted to"*, and were rated relatively high with averages above 4 on a 5-points scale from 1 totally disagree to 5 totally agree. These items might have influenced the response on organizational change, since apparently respondents felt

quite sure in their position, and after the enhancement of those feelings, the items that indicated uncertainty had to be answered.

Another explanation, that is also acknowledged in theories, might be that the more employees feel like they trust their leader, the more they are willing to take risks (Gao et al., 2011; Bordia et al., 2004), meaning that although organizational change might be high, their feelings of risk and uncertainty might be low due to the fact that they trust their leaders. In this study leader trust is rated relatively high with an average of 6 on a 7-points scale ranging from 1 totally disagree to 7 totally agree, which could enhance those findings.

Furthermore, Ohemeng et al. (2019) describe that for trust to be build, next to risk and uncertainty, interdependence is also a condition that needs to be fulfilled. As interdependence was not measured in this study, this might have been an explanation for why organizational change did not strengthen the mediated relationship between initiating structure and psychological distress through leader trust.

To conclude, this study enhances theories of Grover et al. (2014) and Chughtai et al. (2014), by showing a significant mediating relationship between initiating structure and psychological distress through leader trust, but contradicts theories who suggest a direct relationship between initiating structure and psychological distress (Karasek & Theorell, 1992; Lambert et al., 2012; Karasek, 1979), and theories that suggest a moderating effect of organizational change on these relationships (Ohemeng et al., 2019; Van Riper et al., 2016; Walumbwa et al., 2018; Bordia et al., 2004).

Practical implications

This study also comes with practical implications. It shows that leader trust plays a role in reducing psychological distress, and that initiating structure helps building this trust. It is therefore advised to train leaders in initiating structure behaviour.

An important contribution here is that leader trust cannot be built in one day, but it can be violated easily. It is therefore advised to give leaders insights in how trust can be violated, in order to prevent this from happening. Both the previous point concerning initiating structure leader behaviour and this point concerning leader trust seems to be highly relevant for male leaders, as this study shows that female leaders are trusted more than male leaders, and gender of leaders is also correlated to initiating structure, in a sense that initiating structure is higher for female leaders. Also, Centraal Bureau voor de Statistiek (2022) showed that in the Dutch

private sector in 2018, only 34% of the leaders is female, which is why it is extra important that also male leaders are trust-enhancing and show initiating structure behaviour.

Additionally, since costs for curing mental sickness are relatively high, preventing these problems is preferred over curing them. Psychological distress furthermore can result in huge amounts of lost productivity (ILO, 2021), reducing this therefore positively affects firm performance. This is furthermore highly relevant among younger workers, since the younger the employees, the more psychological distress is experienced.

Limitations

The choice of methods used for this study come with several limitations. The first limitation is related to the sampling method. Since non-probability sampling methods were used, there is a chance of over- or under-representation. It might be hard to generalize the results from the sample to the population (Bornstein et al., 2013). The data of the sample used in this study showed that there is an over-representation of higher educated professionals. In the sample used in this study, 64% is higher educated, while in the Dutch population this was about 40% in 2019 (Maslowski, 2020). The conclusions of this research are therefore mainly generalizable for higher educated people.

The second limitation is that the study was cross-sectional. Cross-sectional studies are conducted at one point in time, and a limitation of this method is that is not possible to establish causal relationships (Solem, 2015; Levin, 2006). Furthermore, the results might be different if another time shot was chosen (Levin, 2006). However, since the relationships between the variables initiating structure and psychological distress had not been researched yet, this research was exploratory. Therefore, it was suitable to use a cross-sectional study as research method to provide first insights.

Thirdly, the fact that the questionnaire was self-reporting was a possible limitation. Job stress and strain and health are proven to be particularly subject to a negative affectivity bias (Razavi, 2001). Controlling for negative affectivity is a widely used solution to overcome this bias (Ravazi, 2001). On the other hand, the social desirability bias holds that respondents tend to make themselves look as good as possible (Razavi, 2001). However, due to assured anonymity and to the fact that this research is all about perception, the use subjective measures provided a valuable insight.

Future research

Following the just described limitations and implications, some theoretical implications for future research can be distinguished. Firstly, conducting the study longitudinal is recommended. This is specifically relevant for organizational change, since changes in perceived uncertainty due to organizational change provide insight in its effect on the relationship between initiating structure and psychological distress.

Secondly, future research on possible mediators in the relationship between initiating structure and psychological distress might provide insight in their relationship, since they are not directly related to each other.

Thirdly, to really measure the results of initiating structure, it is recommended to do an experimental study in which one group of leaders is trained in initiating structure and another one is not.

A fourth recommendation for future research concerns using objective measures for measuring psychological distress and organizational change. Psychological distress is relevant for measuring objectively due to the response bias that often occurs in self-reported questionnaires on these subjects. Organizational change is relevant to be measured objectively, since perceptions of organizational change might be influenced by other factors, such as leader trust. A changing situation might not cause uncertainty for one, while the same situation might cause feelings of uncertainty for another.

A fifth recommendation for future research is to also measure dependency instead of just organizational change (risk and uncertainty) in the relationship between initiating structure and psychological distress through leader trust. As both risk and uncertainty, and dependency are requirements for building trust, it is recommended to measure both.

Lastly, it is recommended to research initiating structure and psychological distress through leader trust in a curvilinear way. This study only measured a linear relationship, in which only lacking initiating structure and sufficient initiating structure were hypothesized. Researching a curvilinear relationship expands the theory of Lambert et al. (2012), who introduce the concept of excessive initiating structure.

Conclusion

This study investigated the relationship between initiating structure and psychological distress, both directly and through leader trust, while also looking at possible effects of organizational change. Results of this study show that initiating structure is positively related to leader trust,

and that leader trust in turn reduces psychological distress. This means that as leaders for example clarify tasks, roles, and set expectations, leader trust is built and therefore feelings of psychological distress are suppressed. In my opinion, Dutch organizations can easily apply this leadership style, since it consists of relatively practical and directly applicable tasks, as opposed to for example transformational leadership. In my opinion, such leadership behaviour is more about developing leaders and their personality, while initiating structure consists of more practical tasks that leaders can apply directly. This study shows the relevance of these tasks, since enhanced leader trust reduces psychological distress, resulting in healthier employees. Organizational change does not seem to have any effects on these relationships.

More research is needed to measure other mediators through which initiating structure is indirectly related to psychological distress, and to measure organizational change in a more objective or longitudinal way to overcome the bias that perceptions might have had on the results.

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Appendices

Appendix 1. Survey invitation e-mail

Beste/Geachte [naam werkgever]

Wij hebben uw emailadres gekregen van [naam werknemer], bedankt dat wij u een mail mogen sturen.

Wij zijn Leah, Tamara, Anne, Marjolein en Mette en momenteel zijn wij bezig met onze master thesis voor de master Strategic Human Resources Leadership aan de Radboud Universiteit in Nijmegen. Wij doen onderzoek naar het welzijn van werknemers en de invloed van verschillende leiderschapsstijlen hierop. Er is een groeiende interesse en belang voor het welzijn van werknemers, aangezien het is aangetoond dat dit een positieve invloed heeft zowel op het geluk en de gezondheid van werknemers zelf, alsmede op hun productiviteit binnen het werk. Direct leidinggevenden kunnen het welzijn van werknemers beïnvloeden doordat ze over het algemeen dichtbij de werknemer staan en een belangrijke bron van informatie zijn. Het is daarom erg interessant en relevant om te onderzoeken hoe verschillende leiderschapsstijlen het welzijn van werknemers beïnvloeden, om zo tot zowel theoretische als praktische implicaties te komen.

Op dit moment in ons thesistraject zijn wij bezig met het vormen van een database met mogelijke respondenten, vandaar ook dat we u alvast een mail sturen. Het onderzoek zal bestaan uit het invullen van een vragenlijst, waarbij u en de werknemer(s) beiden een vragenlijst krijgen, maar deze vullen jullie los van elkaar in. De vragenlijst is anoniem en het invullen ervan zal ongeveer 15 minuten in beslag nemen.

Mocht u en uw werknemer(s) deel willen nemen aan het onderzoek, ontvangt u in de week van 11 april een mail met de vragenlijst en verdere instructies. Uiteraard vinden wij het al heel prettig als u en [naam werknemer] onze vragenlijst invullen, maar mocht u nog meerdere werknemers in uw team hebben, zou het helpend zijn als zij de vragenlijst ook zouden invullen. Mocht u alvast een indicatie hebben van naar hoeveel werknemers u de vragenlijst kan sturen, horen wij dit graag.

Als dank voor deelname aan het onderzoek, zijn wij van plan een kort document te maken met hierin een samenvatting van de resultaten en praktische tips.

Tevens, mocht u binnen of buiten uw organisatie nog andere leidinggevenden kennen die wellicht geïnteresseerd zijn in deelname aan het onderzoek, bent u vrij om hun emailadres naar ons door te sturen middels een antwoord op deze mail.

Alvast hartelijk dank voor uw deelname, en mocht u nog verdere vragen hebben, kunt u deze mail beantwoorden.

Met vriendelijke groet,

Leah, Tamara, Anne, Marjolein en Mette

Appendix 2. Survey participation e-mail

Beste deelnemer,

Nogmaals bedankt dat u als leidinggevende deel wilt nemen aan ons onderzoek. Zoals aangegeven in de vorige mail, sturen wij u nu de link naar onze vragenlijst. Deze mail bevat twee survey links en een code. We vragen u de instructies hieronder te lezen zodat de antwoorden goed worden ingevuld.

Naast de twee survey links, 1 voor u als leidinggevende en 1 voor uw werknemer(s), bevat deze mail ook een unieke code. Deze code is random gegenereerd en moet op de eerste pagina van de survey worden ingevuld. Deze code stelt ons in staat om uw antwoorden te koppelen met die van uw werknemer(s). Deze code wordt verder niet opgeslagen en zal worden vernietigd na het invullen van de survey.

Hieronder kunt u uw survey link vinden. We willen u vragen om de survey uiterlijk vóór 30 april in te vullen.

Link survey leidinggevende:
Code:

Vervolgens is de vraag of u de vragenlijst voor de werknemer(s) wilt doorsturen. Onderstaande tekst kunt u kopiëren en mailen naar uw werknemer(s) die willen deelnemen aan het onderzoek:

Beste werknemer,

Wij zijn vijf masterstudenten van de studie ‘Strategic Human Resources Leadership’ die momenteel bezig zijn met ons thesisonderzoek. Wij doen onderzoek naar het welzijn van werknemers en de invloed van verschillende leiderschapsstijlen hierop. Voor ons onderzoek hebben wij data van zowel een leidinggevende als een werknemer nodig. U zou ons erg helpen als u, net als uw leidinggevende, mee wilt werken aan ons onderzoek.

In deze mail vindt u de link naar de survey en een unieke code die u op de eerste pagina van de vragenlijst kunt invullen. Dit stelt ons in staat om uw antwoorden te koppelen met de antwoorden gegeven door uw leidinggevende. Uw leidinggevende zal echter uw antwoorden niet inzien en u kunt daardoor de vragenlijst anoniem invullen. De vragenlijst zal rond de vijftien minuten in beslag nemen. We willen u vragen om de survey uiterlijk vóór 30 april in te vullen.

Link survey werknemer:
Code:

Hartelijk bedankt voor het invullen van de vragenlijst!

Met vriendelijke groet,
Mette, Tamara, Anne, Leah & Marjolein

Mochten er onduidelijkheden of vragen zijn, kunt u ons altijd bereiken door deze mail te beantwoorden.

Met vriendelijke groet,
Mette, Tamara, Anne, Leah & Marjolein

Appendix 3. Regression analysis model 4

	Dependent variable					
	Leader trust			*Psychological distress*		
Predictor	*Coefficient*	*Se*	*p*	*Coefficient*	*Se*	*p*
Constant	-.39**	.14	.0059	1.59**	.25	.0000
Employee-rated initiating structure	.24**	.03	.0000	.03	.06	.6270
Leader trust	--	--	--	-.33*	.14	.0220
Gender of supervisor	.09*	.04	.0348	.09	.07	.1961
Age of employees	.00	.00	.7857	-.01**	.00	.0009

Appendix 4. Additional analysis

	Dependent variable					
	Leader trust			*Psychological distress*		
Predictor	*Coefficient*	*Se*	*p*	*Coefficient*	*Se*	*p*
Constant	.57**	.11	.0000	1.54**	.15	.0000
Difference score initiating structure	-.26**	.06	.0000	-.12	.10	.2401
Leader trust	--	--	--	-.34*	.14	.0143
Organizational change	-.02	.01	.1685	.06*	.02	.0173
Difference score initiating structure x organizational change	.04	.02	.0715	.02	.03	.6675
Gender of supervisor	.09*	.05	.0409	.09	.07	.2179
Age of employees	-.00	.00	.5182	-.01**	.00	.0009

Organizational change	*Coefficient*	*BootSE*	*BootLLCI*	*BootULCI*
1.2471	.0682	.0284	.0149	.1287
2.5467	.0484	.0225	.0096	.0982
3.8462	.0286	.0235	-.0045	.0845

Index	*BootSE*	*BootLLCI*	*BootULCI*
-.0152	.0102	-.0375	.0016