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The Impact o Team Processes on Employee Perceptions o Team High Involvement Work Practices and Employee Well-Being: A Multilevel Study

Team HIWP, TMX, Workload Sharing, Employee Well-Being

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Extended Master's Thesis

Master Human Resource Studies 2014 – 2015

Tilburg University, Faculty of Social and Behavioral Sciences

Abstract

This research studied the indirect effect of team HIWP on employee well-being, specifically the experienced amount of affective team commitment and stress, by employees working within the healthcare sector. Literature such as the social exchange theory and the input-process-outcome (IPO) model was used to substantiate the mediating relationship of the intra-team processes team-member exchange and team workload sharing on this proposed relationship between team HIWP and employee well-being. Archival data was collected by a Human Resource Studies extended master student of Tilburg University at a large health-care facility in the Netherlands. Multilevel data, individual level data and aggregated team level data, of 548 employees from 75 teams was used in order to test the hypotheses. The findings of this study suggest that the relationship between team HIWP and employee well-being is indeed mediated by the intra-team process team workload sharing. It was found that team workload sharing had a positive effect on employee well-being, more specifically team workload sharing enhanced employees affective team commitment and reduced employees stress levels. The mediation of the intra-team processes TMX could not be confirmed. However, TMX was indeed positively related to employee well-being. The findings of this study emphasize the effect of intra-team processes on employee well-being.

Keywords: HRM, HIWP, HIWS, PIRK, intra-team processes, team-member exchange, team workload sharing, social exchange theory, employee well-being, affective team commitment, stress, mediation, multilevel research, multilevel analysis.

Introduction

The rapid growth of job availability in the healthcare sector – 40 percent in ten years – and the deterioration of other parts of the economy, has led to the growth of the healthcare sector within the Dutch economy (Centraal bureau voor de statistiek [CBS], 2013). Subsequently, the amount of hospitalization of people has increased over the years (CBS, 2012; CBS, 2015). These changes can be related to the aging population and changes in healthcare legislations. Due to the economic downturn, the ageing population, and changing regulations and governmental rules within the health care sector, health care organizations are in need of continuously adapting themselves in order to be more (cost)-effective. Next to that, taking care of sicker people increases the complexity of the care demands and the need of multidisciplinary care teams (CBS, 2012; Amphia, 2010).

A great deal of work within organizations is conducted through the usage of teams (Marks, Mathieu, & Zaccaro, 2001). Especially for health-care organizations a team-based approach is most common, so that the specific care demands of patients can be continuously adjusted by the team to meet the patients' needs. Teams as such are social entities who are integrated in social systems and provide guidance and support (Langfred & Shanley, 2001). Teamwork is defined as working together to reach achievements what lies beyond the individual scope of the team member (Marks et al., 2001). Success is, amongst the function of talents of team members, the process used by team members to interact with one another in order to realize the work that needs to be done (Marks et al., 2001). These teams require a good balance between the organization, the people who have to conduct the teamwork, and the processes that are needed to provide the required quality of care (Katzenbach & Smith, 1993). Often these teams work as semi-autonomous teams. Semi-autonomous teams have partial responsibility and autonomy in a number of tasks, wherein supervision is not a constant factor (Junior & Novaski, 2011). These teams are seen as one of the solutions to organize the care process around the patient from a shared sense of responsibility (Cummings, 1978).

High involvement of employees in decision making is one of the basic premises of a semi-autonomous team. Currently, there is significant interest in these employee involvement practices such as employees' involvement in the decision making processes through the use of semi-autonomous teams (Wright, 2000). Interest stems from the notion that positive organizational outcomes, such as cost-effectiveness and better organizational performance, manifests from employee involvement processes (Vandenberg, Richardson, & Eastman, 1999). These involvement processes are called High Involvement Work Practices (HIWP). Previous research indicates that the implementation of HIWP will have a positive effect on employee productivity (Cooke, 1994; Benson, Young, & Lawler III, 2006;

Guthrie, 2001; Vandenberg et al., 1999), and a synergistic effect on team effectiveness (Vandenberg et al., 1999). Team HIWP are therefore generally considered as a 'win-win' approach for teams and their team members (Macky & Boxall, 2008).

HIWP also influences the well-being of the individual team members. According to Warr (1987) and Grant, Christianson and Price (2007) employee well-being is defined as the overall quality of an employee's functioning. A distinction between two types of employee well-being can be made, namely the distinction of the happiness and the health dimension of well-being (Danna & Griffin, 1999). In this study, affective team commitment (i.e. psychological attachment) is the happiness dimension of well-being, and stress (i.e. strain) is the health dimension of well-being.

Prior research indicates that employee involvement is associated with increased employee well-being and commitment (Macky & Boxall, 2008; Vandenberg et al., 1999; Vanhala, von Bonsdorff, & Janhonen, 2009). Team HIWP uses team-oriented development of structures, and supports the social exchange relationship; which increases commitment (Workman & Bommer, 2004). Teams with such cooperative HIWP systems strengthen employees' morale (Riodan & Vandenberg, 1994), and are therefore generally labeled as having a strong morale or team spirit (Bollen & Hoyle, 1990; Carless & De Paola, 2000; Griffith, 1988).

Although the HRM – employee well-being relationship has been extensively researched (Van de Voorde, Paauwe, & Van Veldhoven, 2012), this research is of interest in order to provide insight and understanding via which team mechanisms team HIWP affect the individual well-being of employees working within the healthcare sector. Team HIWP might indirectly affect affective team commitment and stress via intra-team processes. According to Barrick, Stewart, Neubert and Mount (1998) team- or intragroup processes refer to "*the interactions that take place among team members and includes communication patterns, personal disclosure and conflict, and efforts toward leadership and other forms of influence*". This study includes Team-Member Exchange (TMX) and team workload sharing as mediating intra-team processes. TMX is included in this study; because employees in team implemented HIWP have a lot of power and knowledge to engage in these exchange practices. TMX is defined as the reciprocity between a member of the team and the peer group (Seers, 1989). Team workload sharing is the degree to which employees fairly share the teams' workload (Albanese & Van Fleet, 1985). Team workload sharing is included in this study, for the reasons that team HIWP intend to increase involvement and cooperation of team members. Team HIWP are seen as resources. Resources provided by team HIWP have a positive effect on the team social exchange climate and team member support. These exchange relationships between team members trigger reciprocity behavior towards the team

and increases the commitment of the individual team member towards the team, and can reduce stress individual team members might experience. Therefore, this study investigates the multilevel relationship between team high involvement practices, intra-team processes and how these team-based mechanisms can influence the individual well-being of the healthcare employee.

Concluding from all the above, the following research question is formulated: *To what extent do intra-team processes mediate the relationship between team high involvement work practices (HIWP) and employee well-being?*

Currently, it remains unclear what the underlying nature of high involvement practices are (Mendelson, turner, & Barling, 2011). Therefore, this study contributes theoretically to the literature by investigating the multilevel relationship between team involvement work practices and individual employee outcomes, and provides relevant information about the mediation processes of intra-team processes on the team HIWP and well-being relationship.

Lastly, managing well-being is a comprehensive and complex task (Grant et al., 2007). In order to keep team members healthy it is a necessity to act preventively on the deterioration of the well-being dimension. These healthcare workers rely heavily on the resilience and contribution of their team members in order to take care of the patient, and take care of their individual well-being. This research can provide knowledge and insights in which team mechanisms can mediate the relationship between team HIWP and individual well-being, and effectively managing individual employee's health and happiness at work by taking the mediating relationship of intra-team processes into account, and is therefore socially relevant.

Theoretical framework

Team high involvement work processes and team processes

In this study, employee involvement management is approached as High Involvement Work Practices (HIWP). HIWP are derived from the co-optimized systems theory (Fox, 1995). Co-optimized systems theory focusses on the collective adjustment of systematic interrelationships between socio-cultural, technical, and other organizational system components (Fox, 1995). HIWP commonly include bundles of HR practices, such as a set of reinforcing conditions (PIRK). These HIWP PIRK attributes are employee decision-making power (P), access to information (I), incentives and rewards (R), and training and development opportunities (K; Vandenberg et al., 1999). Concluding, these team HIWP aim to empower

employees in better decision making strategies, enhance the knowledge and information, and reward them for using those strategies (Macky & Boxall, 2008).

As HIWP are derived from the co-optimized systems theory (Fox, 1995), the underlying premise is the enhance cooperation and interdependence among employees (Workman, 2003). Therefore, in this present study, team-member exchange (TMX) and team workload sharing are investigated as intra-team processes induced by team HIWP.

TMX refers to the individual team member's perception of the exchange relationships with their entire team and serves as a basis for cohesiveness, group identity and social structure (Keup, Bruning, & Seers, 2004; Seers, 1989). According to Ford and Seers (2006) TMX can be categorized in TMX contributions and TMX receipts. TMX contributions are the supporting actions of the team member to the team. TMX receipts are the contributions the team makes towards supporting the individual team member. Therefore, the TMX construct is based on the reciprocity of behavior and influence between the team member and the entire team (Keup et al., 2004). Support of these exchange relationships can be found in the social exchange theory (Blau, 1964). According to the social exchange theory, team members feel the need to reward their team for their effort in supporting the team HIWP intended by the organization. Therefore they put in extra effort in obtaining effective TMX relationships, in order to increase team effectiveness and performance (Blau, 1964; Emerson, 1976). Addressing the team HIWP and TMX relationship, team HIWP aim at motivating employees in such a manner, they adopt these desired collective behaviors (Heuselid, 1995). Several researchers found that employee perceptions of team HIWP contributed to the creation of a social climate for the mobilization and exchange of knowledge (Adler & Kwon, 2002; Nahapier & Goshal, 1998; Prieto & Pilar Pérez Santana, 2012). Team HIWP will result in more effective social climates between team members; therefore it is likely that employee perceptions of team HIWP are positively related to TMX behavior.

Team workload sharing concerns the extent in which team member equitably share the workload of the entire team (Erez, Lepine, & Elms, 2002). Teams engaged in team HIWP may consist of involvement and participation in decision making processes, and sharing the workload in order to achieve the goals of the entire team (Hogg, 1992). Especially in the healthcare sector there is ever greater reliance of teamwork in semi-autonomous teams. Semi-autonomous teams increases the perception of team members that they are monitored by each other (Erez et al., 2002), and minimizes social-loafing and free-riding, which enhances team effectiveness (Albanese & Van Fleet, 1985; Champion, Medsker & Higgs, 1993). Teams like such are generally labeled as having a strong morale or team spirit (Bollen & Hoyle, 1990). These processes of exchanging rewards can be explained by the

social exchange theory (Blau, 1964). These exchange relationships are created from a desire for social rewards and reciprocity in relationships. In addition, team workload sharing has been synonymously researched as the concept of team monitoring and backup behavior (LePine, Piccolo, Jackson, Mathieu, & Saul, 2008). Such concepts of team monitoring and backup behavior are categorized as action processes (Marks et al., 2001), and involve direct and indirect helping of teammates (i.e. assisting in tasks) in order for the team to reach their goals and objectives (LePine et al., 2008). Therefore, these social exchange relationships strengthen social ties among team members. The PIRK attributes, such as handling the power of decisions making together as a team, also strengthen social ties among team members (Combs, Liu, Hall, & Ketchen, 2006).

Team HIWP strengthens social ties among team members by the PIRK attributes, such as handling the power of decisions making, together as a team (Combs, Liu, Hall, & Ketchen, 2006). Strengthening the teams' internal social structures facilitates information sharing and resource exchanges (Combs et al., 2006). The involvement of teamwork is one of the components that make a high involvement work system effective (Batt, 1999). Since team HIWP are cooperative systems, which trigger a strong morale or team spirit, this is likely to result in the prevention or minimization of social-loafing and free-riding. Therefore, it is likely that employee perceptions of team HIWP will enable team workload sharing among team members, and thus employee perceptions of team HIWP are positively related to team workload sharing.

Based on the above argumentation, the following is hypothesized:

Hypothesis 1a: Employee perceptions of team HIWP are positively associated with team-member exchange behavior.

Hypothesis 1b: Employee perceptions of team HIWP are positively associated with team workload sharing.

Team processes and employee well-being

It is expected that team processes are linked to employee well-being. According to Warr (1987) and Grant et al. (2007) employee well-being is defined as the overall quality of an employee's functioning. A distinction can be made between the two dimensions of employee well-being, namely the happiness dimension and the health dimension (Danna & Griffin, 1999). This study includes the well-being variables affective team commitment (happiness) and job stress (health). Organizational commitment is defined by Porter and Smith (1970) as *"the strength of an individual's identification with and*

involvement in a particular organization, [which is], characterized by three factors: a strong belief in, and acceptance of, the organization's goals and values; a readiness to exert effort on behalf of the organization; and a strong desire to remain a member of the organization" (Mowday, Porter, & Steers, 1982, p. 27). Commitment is a psychological state, explicitly; affective team commitment refers to the emotional state of involvement, engagement and identification with the team (Meyers & Allen, 1991). This study focusses on team processes; therefore affective team commitment is measured instead of affective organizational commitment. However, the positive organizational outcomes of commitment, such as reduced turnover rates, lesser absenteeism and increased performance, are of interest for managers and subsequently organizational effectiveness (Beck & Wilson, 1999). The other well-being variable of interest is job stress. Monat and Lazarus (1991) defined stress as "*any event in which environmental demands, internal demands, or both tax or exceed the adaptive resources of an individual, social system, or tissue system*". Stress defines the relationship between the employee and the work environment of the employee (Lazarus & Folkman, 1984; Kahn & Boysiere, 1994), and occurs when people cannot cope with the demands being made on them (Lazarus, 1966). Stress can have adverse effects, such as job dissatisfaction, absenteeism, and hypertension (Schaufeli & Peeters, 2000). Because of the extent of these adverse effects of stress, it is a necessity to act preventively in order keep team members healthy (Cooper & Cartwright, 1994).

Previous research has paid attention to the complex interplay between social group membership and the effects on well-being by engaging into team processes (Bettencourt & Dorr, 1997; Crocker, Luhtanen, Blaine, & Broadnax, 1994; Sheldon & Bettencourt, 2002; Suh, Oishi, Diener, & Triandis, 1998). The relationship between intra-team processes and affective team commitment can be substantiated by the social exchange theory (Blau, 1964). At first, we will discuss the proposed relationship between TMX and affective team commitment. Affective team commitment is created when employees have identified themselves with the team through exchange relationships, such as TMX behavior (Liu, Keller & Shih, 2011). A social science theory, namely the social exchange theory (Blau, 1964) identifies the positive attitudinal outcomes of the exchange relationship. Specifically, the theory of the norm of reciprocity (Molm, Schaefer, & Collett, 2007) explains these attitudinal outcomes further. This because, the input of an individual in the team (TMX contributions) will lead to more output for the team (TMX receipts) through the patterns of generalized exchange (Molm et al., 2007). Therefore, reciprocity of the team towards its team member increases the commitment of the team member towards his or her team. Liu, Keller & Shih (2011) found in their research that TMX indeed can increase commitment. Employees who experience high TMX relationships have a greater willingness in

sharing information, feedback, and assisting other members of their team (Liu et al., 2011; Seers, 1989). According to Liden, Wayne and Sparrowe (2000) TMX generates an exchange ideology, which contributes through the process of reciprocation to commitment. These social exchange relationships turn into bilateral commitments (Cropanzano & Mitchell, 2005). Following this argumentation, high levels of TMX behavior are positively associated with affective team commitment.

Second, the link of team workload sharing to affective team commitment is further elaborated. This relationship is also supported by the social exchange theory (Blau, 1964), and more specifically the norm of reciprocity (Erez et al., 2002; Molm et al., 2007). Employees who engage in a fair share of the teams' work retain norms of equity, reciprocity and social responsibility (Kerr, 1983). Employees handing those norms focus on an exchange relationship that minimizes any sense of unfairness within the team (Gogia, 2010). Team members' motivation can be affected through an individual's perception of how he or she is treated opposed to the rest of the team (Gogia, 2010). When the team is treated fairly in the eyes of the team, the individual's motivation increases and enhances the affective team commitment of the individual. When teams' workload sharing will be increased, social-loafing and free-riding effects will diminish (Erez et al., 2002; Kerr, 1983). The enlargement of the teams' shared workload increases team member's perceptions of being monitored (Erez et al., 2002). Putting in extra effort increases the norm of reciprocity for the team and therefore affective team commitment for all team members. Team members are motivated to obtain those team results, engaging in reciprocal exchange relationships wherein the received benefits are conditional for the benefits provided (Emmerson, 1972; Molm et al., 2007). Next to that, Erez et al. (2002) found in their research that employees' satisfaction is higher for teams wherein team workload sharing is high. In line with the research of Erez et al. (2002), Tett and Meyer (1993) mention in their research that employee job satisfaction and affective team commitment are linked to each other. Following the preceding argumentation, team workload sharing is positively associated with affective team commitment.

Lastly, the relationship of intra-team processes on stress can be explained by the Job demands-resources (JD-R) model (Demerouti, Bakker, Nachreiner, & Schaufeli, 2001). Intra-team processes include supporting mechanisms (Barrick et al., 1998). According to the JD-R model, social support, such as informational support (TMX) and instrumental support (team workload sharing), are one of the most important forms of job resources (Bakker, Demerouti, & Euwema, 2005; House, 1981). The experience of receiving support by the team and a social exchange team climate, counteracts for the effects of job demands, and reduces the level of stress team members might experience. On the other hand, the minimization of social-loafing and free-riding by team workload sharing in semi-autonomous teams will

also decrease the amount of experienced stress by individual team members. This is because; the workload is evenly shared among all team members and therefore the perception is shared that every team members plays an important part in the effectiveness of the entire team (Erez et al., 2002). Team members will feel mutually responsible for the work that has to be done and do their fair share of the work (Erez et al., 2002; Kerr, 1983; Shepperd, 1993). Thus, no individual team member has to 'up their game' in order for the work to be done and therefore individual stress levels can be minimized. Another explanation for the relationship between intra-team processes and stress can be found in the literature of Walster, Walster and Berscheid (1978). According to Walster et al., (1978) people have a tendency to strife after reciprocity in relationships. If this tendency is not complied with, this can trigger stress reactions. Especially the demanding professions of the healthcare sector have to cope with a lot of stress. However, the sense of support, equity and reciprocity within teams can decrease the amount of stress healthcare employee's experience (Bakker et al., 2005; Erez et al., 2002; Walster et al., 1978). Therefore, intra-team processes are negatively associated with stress.

Based on the preceding argumentation, the following is hypothesized:

Hypothesis 2a: Team-member exchange behavior is positively associated with affective team commitment.

Hypothesis 2b: Team workload sharing is positively associated with affective team commitment.

Hypothesis 2c: Team-member exchange behavior is negatively associated with stress.

Hypothesis 2d: Team workload sharing is negatively associated with stress.

The mediating role of team processes in the team high involvement work practices - employee well-being link

To address the mediating role of team processes, we refer to the input-process-output (IPO) model of teams (Hackman, 1987; McGrath, 1964; Steiner, 1972). The IPO model serves as a foundation for team effectiveness (Goodwin, Burke, Wildman, Salas, 2009). According to the IPO framework, the linking variables between input and outcomes are team processes (Barrick, Bradley & Colbert, 2007; Pelled, Eisenhardt, & Xin, 1999). The dynamic multilevel view of Ilgen, Hollenbeck, Johnsen and Jundt (2005) on the IPO framework states that inputs and team processes interact over time and affect outcomes. Inputs of the IPO model are based on the team structures of motivational job design, such as the structure of the teams HIWP provided PRIK resources (Gladstein, 1984; Goodwin et al., 2009). In addition, the IPO model mentions that team processes are the methods by which individual team members cooperate in

order to use different resources, such as team HIWP PIRK attributes (Marks et al., 2001). In line with the IPO model, Parker, Wall and Cordery (2001) state that work design (e.g. employee perceptions of team HIWP) and employee outcomes (e.g. employee well-being) are linked through intra-team processes.

In addition, the organization support theory (Eisenberger, Huntington, Hutchison, & Sowa, 1986) and social exchange theory (Blau, 1964) supports the indirect relationship between employee perceptions of team HIWP and affective team commitment via signaling employers commitments to employees by introducing team HIWP, which triggers reciprocation of employees with increased efforts in reaching the organizations goals (Aselage & Eisenberger, 2003). Trust inducing HR-practices, such as team HIWP (Pfeffer & Veiga, 1999), are designed to enhance participation, communication, empowerment, and employee involvement to invest emotional and physical in the team (Vandenberg, Richardson & Eastman, 1999). Similarly, Meyers and Herscovitch (2001, p. 323) debated that "*allowing members to participate in the development and implementation of policy is likely to create affective commitment*". Therefore, Mendelson et al. (2011) argue that employee perceptions of team HIWP will have team members with higher levels of affective commitment via intra-team processes.

Adding to the preceding, team HIWP seek to expand employee autonomy and participation in decision making (Butts et al., 2009). The increase of the resources provided by team HIWP PIRK attributes, such as autonomy, support and a social exchange climate, will counteract for the team demands and decrease individual stress levels but will contribute to the feeling of being committed towards the team and the organization (Demerouti et al., 2001). In addition, reciprocal relations based on the PIRK resources provided by team HIWP decreases individual stress levels (Bakker, Killmer, Siegirst, & Schaufeli, 2000).

According to the above reasoning, it can be expected that employee perceptions of team HIWP and employee well-being will be mediated by intra-team processes. Therefore, the following hypotheses summarize the mediation effect:

Hypothesis 3a: Team-member exchange behavior positively mediates the relationship between employee perceptions of team HIWP and affective team commitment.

Hypothesis 3b: Team-member exchange behavior negatively mediates the relationship between employee perceptions of team HIWP and stress.

Hypothesis 3c: Team workload sharing positively mediates the relationship between employee perceptions of team HIWP and affective team commitment.

Hypothesis 3d: Team workload sharing negatively mediates the relationship between employee perceptions of team HIWP and stress.

Conceptual model

The in the theoretical framework augmented proposed relationships are visualized in Figure 1.

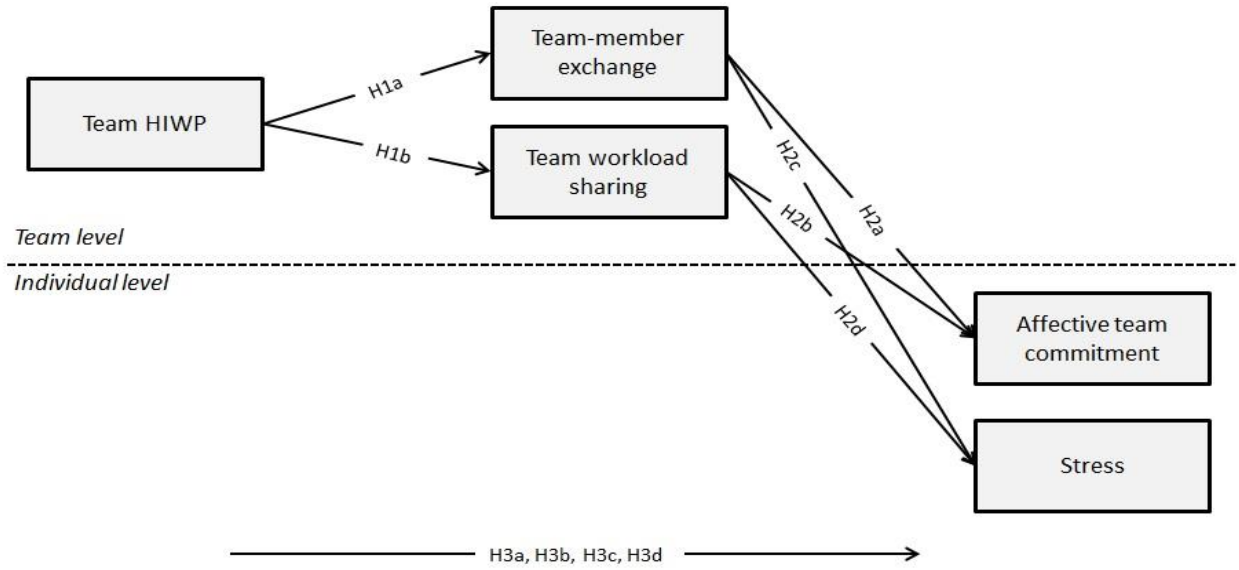

Figure 1: Conceptual model

Methods

Design

Data from employees were collected at one moment in time. Archival data was used and collected on individual employee level and on team level. This study has a multilevel design, taking into account the nesting of the individual's data within the team level data. On the team level, aggregated individual level data was used to measure HIWP, TMX and team workload sharing. Employee individual level data was used to measure affective team commitment and stress.

Procedure

The data was collected in 2014, by a Human Resource Studies extended master student of Tilburg University at a large health-care facility in the Netherlands. Random probability sampling was used in order to select team members at random (Ritchie & Lewis, 2003). All employees were categorized by ascending alphabetic order, and the uneven numbers in the list were selected to participate in this

study. Only teams with one cooperative team leader were selected for this study, teams with more than one cooperative team leader were left out of the sample. Of each team 50 percent of the team was selected to participate with a minimum of ten employees and a maximum of 25 employees. If there were lesser than ten employees in the team, the whole team was drawn to participate in the sample. Employees with a dual employment were only taken once in the sample. Students were included in the sample; however, redundancies were left out. Employees were approached by their e-mail address for the voluntary partake of the questionnaire. For the randomly sampled employees a link was presented in the e-mail to click on, and fill in the questionnaire in Qualtrics online survey software.

Sample

Of the 1181 employees, with one cooperative team leader, who were contacted to participate in this study, 689 employees (58.34%) of 114 teams had filled in the questionnaire. Team response representativeness percentages threshold values were taken into account in order to guarantee the generalizability of the results (Fincham, 2008). Teams with ten employees or less, needed to have a response percentage of at least 40 percent. Teams with more than ten employees needed to have a response percentage of at least 20 percent. After the exclusion of those teams that could not comply with the teams response percentages, 548 employees from 75 teams remained in the sample (46.40%).

Of those 548 employees, the majority of the sample was female (85.22%). The average age was 45 years with a standard deviation (SD) of 10.93. Most of those employees had a higher (48.54%) or lower (40.69%) vocational educational background, with an average of 27 weekly working hours according to their contract (*SD* = 6.92). The average organization tenure of the sample was 16 years (*SD* = 11.05), with an average team tenure of 10 years (*SD* = 8.68).

Measurements

Team HIWP. Team HIWP were measured by a subset of ten questions reported by employees, measuring the four PIRK (Power, Information, Reward, and Knowledge) attributes of employee perceptions of team HIWP (VandenBerg et al., 1999). The formulation of the original scale was adjusted to fit the team-based approach. Information was measured by a set of four questions; power, knowledge and reward were each measured by two survey questions. The original scale by Vandenberg et al. (1999) handled a 4-point Likert format (disagree – agree). This study used a 5-point Likert score, by adding a neutral score level in the middle, to counteract forced decision making. The response categories were (1) strongly disagree, (2) disagree, (3) neutral, (4) agree, and (5) strongly agree. An

example of an item for power was “My team has enough authority in deciding how to accomplish our work”. An example for an item for information was “Most of the time, we receive sufficient notice by the MTL of changes that affect our team”. Aggregated individual level data was used to measure team HIWP at a team-based level. The data fitted the requirements for factor analysis (*KMO* > .60, Bartlett’s Test of Sphericity < .001). Principal component analysis did not find the factor loadings to fit the theoretically grounded PIRK subscales. However, results of the principal component analysis with a forced one factor solution showed that the first nine items loaded above .30 on the first factor and explained 40.72% of the total variance in HIWP. Item ten “There is a strong link between how well members of my team are performing and the likelihood of receiving a raise in pay/salary” had a factor lading below guidelines (.23 < .30) and was therefore excluded from the scale. After the factor analysis a mean score of the first nine items was calculated. Reliability analyses of these nine items indicated that they form a highly reliable scale (Cronbach’s alpha = .816). The results of the PCA and the Cronbach’s alpha can be found in appendix A (Table A1). The aggregated mean team scores for team HIWP were found to be reliable (ICC2 > .56; Table B1).

TMX. TMX was measured with the use of a ten-item scale of Seers, Petty and Cashman (1995), and were translated into Dutch. Responses were measured using a 5-poiny Likert scale ranging from (1) strongly disagree to (5) strongly agree. The original scale handled a 4-point Likert scale. Example items included “I give my teammates often suggestions for better ways of working” and “My teammates recognize my potential”. The KMO value of .77 and the significant Bartlett’s Test of Sphericity (p < .001) supported a good factorability of the data (see Appendix A Table A2). PCA findings revealed that a forced one-factor solution with Oblimin rotation showed high factor loadings (> .30) on all items and explained for 35.94% of the total variance of the items. The Cronbach’s alpha for this scale was .785.

Team workload sharing. Team workload sharing was measured using five items, based on the scale of Erez, LePine and Elms (2002). The items were translated in Dutch and altered to fit the team-based approach. This study used a 5-point Likert scales ranging from (1) strongly disagree to (5) strongly agree, opposed to the original 7-point Likert scale. Example items of team workload sharing were “My teammates adequately fulfill their responsibilities within the team” and “My teammates take responsibility for their work, even if they could avoid it”. The data was aggregated from the individual level to team level, to fit the team-based approach. The KMO value was .85 and the Bartlett’s Test of Sphericity was significant (*p* < .001). PCA showed that the items formed one factor with factor loadings above .30 and the one factor solution accounted for 66.08% of the total variance (see Appendix A Table A3). The Cronbach’s alpha of .867 indicated that the scale was highly reliable. The ICC2 for the mean

scores of team workload sharing did not exceed the ICC2 cutoff point (.46 < .50; Bliese, 2000). Klein and Kozlowski (2000) suggested that data aggregation is still acceptable, since the ICC1 was high enough and the F-test was significant (Table B2).

Affective team commitment. Affective team commitment was measured by three items (Allen & Meyer, 1990). The original scale, based on the work of Allen and Meyer (1990) and Moideenkutty, Blau, Kumar and Nalakth (2001), was translated into Dutch and altered in order to fit the team-based approach of this research. An example item is "I feel like 'part of the family' in this team". The original scale used a 7-point Likert scale. This study used a 5-point Likert scale ranging from (1) strongly disagree to (5) strongly agree. According to the significant value of the Bartlett's Test of Sphericity factorability of the data was appropriate. However, the KMO value was below .60. The Cronbach's alpha of the scale was .621, and if item one was deleted .751 (I really feel as if the team's problems are my own). Therefore, item one was deleted from the scale. PCA results revealed that the remaining two items loaded above .30 on a one-factor solution with a total explained variance of 81.08% (see Appendix A Table A4).

Stress. Stress was measured with the use of a six-item scale based on the work of Parker and DeCotiis (1983). The original scale and was translated into Dutch. Employees were asked on a 5-point scale if they agreed or disagreed with the statements, opposed to the original 4-point Likert scale. Response scales ranged from (1) strongly disagree to (5) strongly agree. An example item was "I feel sometimes guilty when I take time off from my job". Another example item was "I feel like I never have a day off from my job". Factorability of the data was supported (*KMO* > .60, Bartlett's Test of Sphericity $p < .001$). PCA indicated a one factor solution with high factor loading (> .30) explaining 53.84% of the total variance in the items (see Appendix A Table A5). Reliability analysis showed that the scale was highly reliable (Cronbach's $\alpha = .824$).

Control variables. In order to test the hypotheses four individual level demographic control variables were included in this study. The variables - age, gender, team tenure, and weekly working hours - were included as controls because of their potential influence on employee well-being.

Age. Previous research indicates that the flexibility of aging employees decreases and they become more resistant against change (Wiersma & Bantel, 1992). On the other hand, according to the research of Mayes, Barton and Ganster (1991) older workers are lesser affected by job stressors then younger employees.

Gender. The overall level of well-being of men is generally lower than the well-being of females (Courtenay, 2000). In addition, the research of Collins and Frankenaeuser (2010) shows that female are

better able to cope with stress than their male counterpart, because female can continue to perform better although they produce more stress hormones. Although gender is a dichotomous variable, a dummy variable was created for gender with the reference category formed by female.

Team tenure. Team tenure refers to the amount of time an individual has been working together with the team (Schippers, Den Hartog, Koopman, & Wienk, 2003). Team tenure has consistently found to be associated with higher levels of team commitment (Brown, 1966; Mathieu & Zaja, 1990; Wiersema & Bantel, 1992). This meant that employees with longer team tenure are mostly found to be more committed to their team, and will invest more in them then their colleagues with lesser team tenure (Cheng & Chan, 2008).

Weekly working hours. The structural height of employees weekly working hours can have hazardous effects on the well-being of employees (Dembe, Erickson, Delbos, & Banks, 2004). Therefore, weekly working hours was included as a control variable, in order to test the effect weekly working hours can have on employee well-being.

Statistical analyses

SPSS 22 for Windows was used to conduct the statistical analyses. The individuals were nested within the team level data. A two-level mediation model was used to test the hypotheses. The team level data, representing level-2, includes the constructs team HIWP and the aggregated data of TMX and team workload sharing. The individual level data, representing level-1, includes the constructs affective team commitment and stress. Because the independent and mediating variables are supposed to be level-2 variables, and the dependent variable is a level-1 variable, this is a 2-2-1 design (Preacher, Zyphur, & Zhang, 2010). Multilevel analyses were used to account for the nesting of the data. A null-model with restricted maximum likelihood was run to find the between-group and within-group variance components. The ICC1 describes how strongly team members in a team resemble the entire team. The ICC2 indicates the reliability of the team mean scores. The higher the ICC1 coefficient, the more homogeneous the teams are (Heck, Thomas, & Tabata, 2010). The ICC1's were calculated by using Bartko's (1976) and Bliese's (2000) formula. This meant subtracting the mean squares between groups (MSB) and the mean squares within groups (MSW), dividing this number by the mean squares between groups (MSB) plus the multiplication of the average groups size minus one (k-1; k = 9.05) and the mean squares within groups (MSW). The ICC1 score of TMX and team workload sharing resemble the ratio of the variance between-groups to the total variance. An ICC1 score of 0.05 and below is considered as a cut-off score for performing a multilevel analysis, because an ICC score of 0.05 and below would indicate

that there is less than 5% variation between groups, and therefore multilevel models are difficult to estimate (Heck et al., 2010). The ICC1 scores of this study can be found in table 1. The ICC1 score of TMX did not exceed the appropriate ICC1 cut-off point of 0.05. This score implies that TMX scores of employees cannot be assessed in a reliable way at team level, and will therefore be considered as an individual level-1 variable throughout the remainder of this research. The ICC1 values of team workload sharing, affective commitment and stress were also rather low. Team workload sharing had an ICC1 value of 0.088, which indicated that 8.8% of the workload sharing variance is between teams. Affective team commitment had an ICC1 of 0.074 and stress had an ICC1 value of 0.069, indicating that 7.4% of the variance of affective team commitment and 6.9% of the variance of stress is between teams. Although the ICC1 scores of the latter three variables were relatively low, they did exceed the cutoff point of 0.05, and multilevel analyses were therefore appropriate (Heck et al., 2010). The ICC2 is calculated by subtracting the subtracting the mean squares between groups (MSB) and the mean squares within groups (MSW), divided by the mean squares between groups (MSB; Bliese, 2000). Bliese (2000) handles a cutoff point off 0.50 for ICC2 calculations. The ICC2 calculations of team HIWP and team workload sharing can be found in Appendix B.

Table 1: ANOVA outcomes and ICC1 per variable

	MSW	MSB	F	sig	ICC1
TMX	0.134	0.116	1.151	.201	1.5%
Team workload sharing	0.303	0.569	1.877	.000	8.8%
Affective team commitment	0.338	0.581	1.720	.001	7.4%
Stress	0.307	0.514	1.674	.001	6.9%

Formula: ICC1 = (MSB – MSW) / (MSB + ((k-1) * MSW)) (Bartko, 1976; Bliese, 2000). k = 9.05.

Because of the low ICC1 value of TMX, individual level TMX scores could not be aggregated to team level data. A 2-1-1 cross-level design for mediation will be needed to calculate the model for TMX (Mathieu & Taylor, 2007; Preacher et al., 2010). Therefore, a combination of a 2-2-1 level design for team HIWP (level-2 variable), team workload sharing (level-2 variable) and the well-being variables stress and affective team commitment (both level-1 variables), and a 2-1-1 level design for team HIWP (level-2 variable), TMX (level-1 variable), and well-being variables stress and affective team commitment (both level-1 variables) will be used to test the conceptual model.

Ordinary least squares regression analyses and three sets of MIXED models will be used to test the hypotheses, with team-member exchange, team workload sharing, affective team commitment and

stress as dependent variables. Mixed models share the notion that individual observations are grouped by the design of the data. Next to that, mixed models are characterized as containing both fixed and random effects. The fixed effects are similar to standard regression coefficients and are directly estimated. The random effects are summarized in terms of their estimated variances and covariances, and are not directly estimated (West, Welch, & Galecki, 2014). To test the effects of team HIWP on TMX, a model with a random intercept will be run (M0). In the second step of that model, the control variables will be included (M1). Lastly, the model will be run with adding team HIWP (M2).

In order to test the effects of team HIWP on team workload sharing an ordinary least squares regression analyses will be run with team workload sharing as the dependent variable. In step 1, the control variables will be added (M1). In step 2, team HIWP will be added to the model (M2).

To test of team HIWP and team processes influences employee well-being, first a model with a random intercept will be run (M0). In the second step of that model, the control variables will be added (M1). The third model will be run with entering team HIWP (M2). In the fourth and final model, team-member exchange and workload sharing will be entered (M3). These four models will be run twice, for each of the well-being dimensions, affective team commitment and stress, as the dependent variable.

Full Information Maximum Likelihood (FML) will be used for model comparison testing rather than Restricted Maximum Likelihood (REML). This because, FML includes regression coefficients and variance components, rather than only the variance components as in REML (Heck et al., 2010). In addition, FML should be used for model comparison testing; therefore FML was used over REML. FML provides information about the model fitting the data. The log likelihood statistic (-2LL) and the change in parameters (df; degrees of freedom) were used to for calculating the Chi-square test (χ^2), a test for verifying whether the complex model fits the data better than the simpler model (Heck et al., 2010).

To test the mediation effect the guidelines of MacKinnon, Fairchild and Fritz (2007) for mediation, which will be further elaborated in the results section, needed to be met. If the guidelines will be met, a one-tailed Sobel test (1982) will be run for each mediating mechanism.

Results

Descriptive statistics

The results of the means (M), standard deviations (SD), and Pearson correlations of the variables and control variables are presented in Table 1. As the theoretical underpinning proposed, employee perceptions of team HIWP are positively correlated to team workload sharing (r = .30, p < .01). However,

team HIWP seems unrelated to TMX (r = .03, p > .05). Both the intra-team processes are positively inter-related (r = .27, p < .01). Of the well-being dimensions, only stress seems to be correlated to team HIWP (r = -.23, p < .01); team HIWP and affective team commitment seem to be uncorrelated (r = .08, p > .05). Both intra-team processes are correlated with employee well-being. TMX was positively related to affective team commitment (r = .35, p < .01) and negatively related to stress (r = -.17, p < .01). In addition, team workload sharing was also positively related to affective team commitment (r = .18, p < .01) and negatively related to stress (r = -.14, p < .01). The two well-being dimensions were negatively inter-correlated (r = -.10, p < .05).

Team HIWP and intra-team processes

To test the effect of team HIWP on intra-team processes, hypothesis 1a and 1b, three nested models and OLS regression analysis were run (Table 3; Table 4). The first model (M0; Table 3) showed significant unexplained variance on the individual level (σ^2 = .11, p < .001). Therefore the individual level variables had the potential to predict TMX. To this empty model the level-1 control variables were included (Table 3; M1). A significant negative relationship between age and TMX (B = -.01, p < .01) was found. This means that as employees' age increases, TMX behavior decreases slightly. The Chi-square test does not indicate a significant improvement for predicting TMX by adding team HIWP to the model (Table 3; M2; χ^2 = 1.01, df = 1, p > .05). In addition, results confirmed that team HIWP does not predict TMX (B = .06, p > .05), and hypothesis 1a is therefore rejected.

Team workload sharing was predicted from team HIWP. In step 1 in the regressions analysis, team workload sharing was predicted from the control variables. The variable weekly working hours was found to be negatively related to team workload sharing (B = -.01, p < .01). This meant that as employee's working hours increased, team workload sharing decreased. In step 2, team HIWP was added as a predictor of team workload sharing. As can be seen in Table 4 (M2), team workload sharing is positively associated to team HIWP (B = .28, p < .01), and results also indicated a significant improvement of the model by adding team HIWP (Table 4; M1; *F Change* = 3.065, p < .05; Table 4; M2; *F Change* = 10.995, p < .001). Hypothesis 1b is therefore accepted. In sum, team HIWP perceived by team members will lead to more TMX behavior and team workload sharing within the team.

Table 2: Means, Standard Deviations and Correlations

	Mean	SD	1	2	3	4	5	6	7	8	9
1. Age	45.67	10.71	1								
2. Gender[1]	.15	.36	.13**	1							
3. Team tenure	10.83	8.63	.45**	.04	1						
4. Contractual weekly working hours	27.31	7.48	-.08	.38**	-.06	1					
5. Team HIWP[2]	3.31	.31	-.01	-.14**	.00	-.04	1				
6. TMX	3.83	.34	-.14**	-.02	-.03	-.03	.03	1			
7. Team workload sharing[2]	3.75	.29	-.07	.05	-.06	.04	.30**	.27**	1		
8. Affective team commitment	3.44	.61	-.05	-.04	.01	.00	.08	.35**	.18**	1	
9. Stress	2.16	.58	-.09	.11*	-.06	.13**	-.23**	-.17**	-.14**	-.10*	1

Note: [1] Dummy variable with female as reference group. [2] Aggregated team level variable. HIWP = high involvement work practices. TMX = team-member exchange. *P < .05, **p < .01. Valid N (listwise) = 476 employees.

Table 3: predicting team-member exchange

Model	M0 B (SE)	M1 B (SE)	M2 B (SE)
Fixed part			
Individual level			
Intercept	3.83 (.02)***	4.10 (.10) ***	3.92 (.21)***
Age		-.01 (.00)**	-.01 (.00)**
Gender[1]		.03 (.05)	.03 (.05)
Team tenure		.00 (.00)	.00 (.00)
Weekly working hours		-.00 (.00)	-.00 (.00)
Team level			
Team HIWP			.06 (.06)
Random part			
σ^2	.11 (.01)***	.11 (.01)***	.11 (.01)***
τ^2	.00 (.00)	.00 (.00)	.00 (.00)
Deviance			
-2 log likelihood	347.03	336.19	335.18
Parameters	3	7	8
Change in -2LL/(df)		10.84	1.01
		(4)***	(1)

Note: [1]Dummy variable with female as reference group. HIWP = high involvement work practices. TMX = team-member exchange. B = unstandardized parameter estimate. SE = standard error. df = degrees of freedom. *p < .05, ** p < .01; ***p < .001.

Table 4: regression analysis predicting team workload sharing

	M1 B (SE)	M2 B (SE)
Step 1		
(constant)	4.19 (.16)***	3.26 (.33)***
Age	-.00 (.00)	-.00 (.00)
Gender[1]	.08 (.08)	.11 (.08)
Team tenure	-.00 (.00)	-.00 (.00)
Weekly working hours	-.01 (.00)**	-.01 (.00)***
Step 2		
Team HIWP		.28 (.09)**
R^2	.024	.046
F	3.065*	4.701***
R^2 Change	.024	.021
F Change	3.065*	10.995**

Note: [1]Dummy variable with female as reference group. HIWP = high involvement work practices. B = unstandardized parameter estimate. SE = standard error. *p < .05, ** p < .01; ***p < .001.

Intra-team processes and employee well-being

Hypothesis 2a-d concerns the relationship between the intra-team processes TMX and team workload sharing, and the employee well-being dimensions affective team commitment and stress. As the findings in Table 5 (M3) and Table 6 (M3) indicate TMX is positively associated with affective team commitment (B = .46, p < .001) and negatively associated with stress (B = -.23, p < .05). These results support the assumption that employees who experience TMX in their team, have a higher level of affective team commitment, and experience lower stress levels. Therefore, hypothesis 2a and hypothesis 2c are both accepted.

In addition, the results of Table 5 (M3) and Table 6 (M3) clearly indicate that team workload sharing is positively associated with affective team commitment (B = .20, p < .001) and negatively associated with stress (B = -.11, p < .05). These findings indicate that employees who experience workload sharing in their team, have higher levels of affective team commitment, and experience lower levels of stress. In accordance with these findings, hypothesis 1b and hypothesis 1d are therefore accepted. Including the scores for TMX and team workload sharing into the analysis for predicting

affective team commitment (Table 5; M3; $\chi^2 = 70.08$, df = 2, $p < .001$) and stress (Table 6; M3; $\chi^2 = 21.02$, df = 2, $p < .001$) significantly improved the model fit.

Table 5: predicting affective team commitment

Model	M0 B (SE)	M1 B (SE)	M2 B (SE)	M3 B (SE)
Fixed part				
Individual level				
Intercept	3.43 (.04)***	3.52 (.18)***	3.00 (.41)***	.57 (.47)
Age		-.00 (.00)	-.00 (.00)	-.00 (.00)
Gender[1]		-.04 (.09)	-.03 (.09)	-.06 (.08)
Team tenure		.00 (.00)	.00 (.00)	.00 (.00)
Weekly working hours		.00 (.00)	.00 (.00)	.00 (.00)
TMX				.46 (.08)***
Team level				
Team HIWP			.16 (.11)	.08 (.10)
Team workload sharing				.20 (.05)***
Random part				
σ^2	.34 (.02)***	.34 (.02)***	.34 (.02)***	.30 (.02)***
τ^2	.04 (.02)*	.04 (.02)*	.03 (.01)*	.02 (.01)
Deviance				
-2 log likelihood	872.57	871.33	869.41	799.33
Parameters	3	7	8	10
Change in -2LL/(df)		1.24 (4)	1.93 (1)	70.08 (2)***

Note: [1]Dummy variable with female as reference group. HIWP = high involvement work practices. TMX = team-member exchange. B = unstandardized parameter estimate. SE = standard error. df = degrees of freedom. *p < .05, ** p < .01; ***p < .001.

Table 6: predicting stress

Model	M0 B (SE)	M1 B (SE)	M2 B (SE)	M3 B (SE)
Fixed part				
Individual level				
Intercept	2.16 (.03)***	2.20 (.17)***	3.53 (.36)***	4.77 (.46)***
Age		-.00 (.00)	-.00 (.00)	-.01 (.00)*
Gender[1]		.17 (.08)*	.12 (.08)	.14 (.08)
Team tenure		-.00 (.00)	-.00 (.00)	-.00 (.00)
Weekly working hours		.01 (.00)	.01 (.00)	.01 (.00)
TMX				-.23 (.08)**
Team level				
Team HIWP			-.41 (.10)***	-.36 (.10)***
Team workload sharing				-.11 (.50)*
Random part				
σ^2	.31 (.02)***	.30 (.02)***	.30 (.02)***	.28 (.02)***
τ^2	.03 (.01)*	.03 (.01)*	.02 (.01)	.02 (.01)
Deviance				
-2 log likelihood	825.95	809.71	793.837	772.819
Parameters	3	7	8	10
Change in -2LL/(df)		16.23 (4)***	15.87 (1)***	21.02 (2)***

Note: [1]Dummy variable with female as reference group. HIWP = high involvement work practices. TMX = team-member exchange. B = unstandardized parameter estimate. SE = standard error. df = degrees of freedom. *p < .05, ** p < .01; ***p < .001.

Mediation via intra-team processes

Hypothesis 3a-d were formed to test the mediation effect of intra-team processes. To investigate the mediation effects of intra-team processes the guidelines of MacKinnon, Fairchild and Fritz (2007) for mediation needed to be met. These guidelines prescribe that there needs to be (1) a significant relation between the independent variable and the mediating variables, and (2) a significant relation between the mediating variables and the dependent variables. Team HIWP was positively related to team workload sharing, and met the first guidelines for mediation. However, team HIWP was not significantly related to TMX behavior. Because team HIWP and TMX were not significantly related, the first guidelines for mediation could not be met. Hypothesis 3a and hypothesis 3b are therefore rejected.

Team HIWP was significantly related to team workload sharing and team workload sharing was significantly related to affective team commitment and stress. Team HIWP, team workload sharing, affective team commitment and stress thus met the requirements of MacKinnon et al. (2007) for mediation. Two additional (one-tailed) Sobel tests (1982) were performed to investigate the mediating role of team workload sharing. Results of the Sobel test can be found in Appendix C (Table C1; Table C2). The results of the first Sobel test of the mediation of team workload sharing on team HIWP and affective commitment is significant (t = 2.51, p < .01) and supports mediation. Thus, hypothesis 3c is confirmed. Lastly, results of the second Sobel test are significant and support mediation on the relationship of team workload sharing on team HIWP and stress (t = -1.79, p < .05). Hypothesis 3d is therefore accepted.

In sum, the results of the Sobel test indicate that team workload sharing mediates the relationship between team HIWP and both well-being dimensions, affective team commitment and stress.

Conclusion and discussion

This study aimed to generate insight into the team HIWP, intra-team processes and individual well-being relationship within the healthcare sector in the Netherlands. Central to this multilevel research was investigating the mediating role of intra-team processes in the relationship between team HIWP perceived by employees and the individual well-being of employees. TMX and team workload sharing were included as intra-team processes within this study, because team HIWP were expected to provide knowledge and power to engage into exchange behavior, and increase involvement and cooperation of team members. This research paid specific attention to these intra-team processes, and how these intra-team processes could influence the happiness and health dimensions of well-being, specifically the experienced amount of affective team commitment and stress by employees working within the healthcare sector. This is of ever greater importance for employees working in the healthcare sector. Because, these healthcare employees often have to deal with understaffing, complexities in care demands, and stress (CBS, 2012; Kerkhof & Bloodshoofd, 2010). Therefore, team members rely heavily on the support and contribution of their team in caring for the patient, and their own individual well-being. Thus, teams are important components for organizations operating within the healthcare sector.

Based on the co-optimized systems theory (Fox, 1995) and the social exchange theory (Blau, 1964) we hypothesized that team HIWP had a positive effect on intra-team processes. Even though team HIWP were expected to positively affect supporting actions towards the team, findings indicated that team

HIWP had no significant effect on TMX behavior of employees. Thus, the expectation that team HIWP induced TMX behavior was not supported. An explanation could be that specific sub-bundles of HR practices, for example upward feedback systems (empowerment enhancing bundle) were not experienced by the employee (Subramony, 2009). Team HIWP are likely to improve internal social structures; those structures facilitating communication processes and cooperation among team members (Combs et al., 2006; Evans & Davis, 2005). However, team members could have not experienced the sub-bundles of HR practices, for example by the feeling they do not get enough recognition and appreciation, linked to those social structures, and therefore had not experienced the facilitation of the communication process (TMX). This relationship between team HIWP and TMX was therefore presumably not supported by the results of this research. In addition, some teams of the team members were excessively large in order for these exchange relationship to take place. According to Belbin (2011) the ideal team size is a team of ideally four employees. However, the largest team in this sample had 62 team members. It was likely to assume that smaller operational teams were created naturally in the larger team (Belbin, 2011). This could also be an explanation for the low ICC1 score of TMX. The ICC1 value did not find a strong resemblance of the individual team members with the entire team. This meant that there was a lot of difference between individual team members. Presumably, smaller sub-sets of teams had arisen within the larger team sample creating an inconsistency in the answers of the team as a whole (Tajfel, 1970). The participants of a team could be divided into various sub-teams, which only had an exchange culture with their self-selected sub-team members. These differences in the team implicated that team HIWP were not perceived by team members to create exchange relationships with their entire team. Therefore, employee perceptions of team HIWP were not associated with TMX behavior.

As predicted, employee perceptions of team HIWP were indeed positively significantly related to team workload sharing. The more employees perceived team HIWP, the more teams engaged in sharing the workload with their team members. This can be substantiated by the aforementioned ever greater reliance of semi-autonomous teams within the healthcare sector. Teams as such, need to make synergistic use of all individual team member strengths, in order to deliver the best possible care to the patient (Katzenbach & Smith, 1993). On the other hand, working within teams also increases team monitoring and backup behavior (LePine et al., 2008). Thus, it is likely that team workload sharing does take place, because team HIWP trigger strong team morale and reduces social-loafing and free-ridging behavior of other team members (Albanese & Van Fleet, 1995; Champion et al., 1993).

All in all, it can be assumed that team HIWP has a positive significant effect on team workload sharing, however no significant effect of team HIWP on TMX was found.

The social exchange theory (Blau, 1964) supported the positive relationship between TMX behavior and affective team commitment. This theory identifies the positive attitudinal outcomes of the exchange relationships and explains those attitudinal outcomes further by the patterns of generalized exchange. Put in other words, reciprocity of the team towards its team members increases the commitment of the team members towards his or her team (Molm et al., 2007). In addition, an exchange involves a bidirectional transaction – giving and taking – which turn into bilateral commitments (Cropanzano & Mitchell, 2005; Molm, 1994). As predicted, the results of this study could confirm these theoretical underpinnings regarding this relationship.

Based on the norm of reciprocity and the equity theory (Kerr, 1983), originating from the social exchange theory (Blau, 1964), a positive relationship between team workload sharing and affective team commitment was hypothesized. The findings of this research could indeed confirm this relationship. Thus, teams who share their workload are more affectively committed towards their team. Erez et al., (2002), Gogia (2010), Kerr (1983), and Molm et al. (2007) supported this relationship by asserting that engaging into those norms and social responsibilities increases feelings of fairness within the team and those feelings trigger an individual motivational process by increasing the norm of reciprocity of the team, and enhance effective team commitment of the employee.

As predicted, intra-team processes were negatively related to employees' stress levels. These outcomes are in line with the JD-R model of Demerouti et al. (2001), which indicated that informational support (TMX) and instrumental support (team workload sharing) are the most important forms of job resources (Bakket et al., 2005; House, 1981). Findings indicated that TMX had a significant negative effect on stress. The experience of receiving informational support by the team and a social exchange team climate, indeed counteracted for the effects of job demands, and reduced the level of stress team members might experience. Team workload sharing also had a significant negative effect on stress. The minimization of social-loafing and free-riding by team workload sharing decreased the amount of experienced stress levels of employees. This is also supported by the research of Walster et al. (1978) and Kerkhof and Bloodshoofd (2010) who claim stress levels can decrease by the level of reciprocity and given support.

Nevertheless, another interesting finding is that TMX behavior has a more comprehensive impact on employee well-being than team workload sharing has on employee-wellbeing. Therefore, the

importance of a bidirectional transactional exchange relationship for team members presumably outweighs the feelings of equity and fairness. However, this could also be explained by the fact that TMX and employee well-being are measured on the individual level (level-1 variables), and team workload sharing and employee well-being are measured on multiple levels (level-2 and level-1 variables).

Unfortunately, the relationship between team HIWP and TMX was not confirmed, therefore TMX did not mediate the team HIWP and employee well-being relationship. However, findings did indicate two mediating mechanisms linking team HIWP and employee well-being through team workload sharing. These findings are supported by the IPO model of team effectiveness (Hackman, 1987; McGrath, 1964; Steiner, 1972). According to this framework, intra-team processes are the linking variable between input and outcomes (Barrick, Bradley, & Colbert, 2007; Pelled, Eisenhardt, & Xin, 1999). More specifically, work design (employee perceptions of team HIWP) and employee outcomes (employee well-being) are linked through intra-team processes (team workload sharing; Parker, Wall, & Cordery, 2001). Defining the mediation mechanism for team workload sharing, these mediation mechanisms were expected and supported through the implementation of team HIWP which increased participation, communication, empowerment, and employee involvement in investing emotionally and physically towards the team (Vandenberg, Richardson, & Eastman, 1999). The cooperative social systems that were created minimized social-loafing and free-riding and enhanced team morale and team spirit (Bollen & Hoyle, 1990; Combs et al., 2006; Hogg, 1992). This increased affective team commitment. The participation of the PRIK attributes of team HIWP could in their turn facilitate decision making strategies, counteract for team demands and decrease stress levels. Reactions of such kind accommodate employees to be more affectively committed towards the team and decrease individual employee stress levels.

In sum, this study provided more insights in the mediation of intra-team processes on the HRM and employee well-being relationship of employees working within the healthcare sector.

Limitations and future research implications

Within this research there were several limitations that needed to be taken into account when drawing conclusions from the results that were found. A first limitation was based on the measurements of the variables. The scales of the five variables used within this research were translated from the English language into the Dutch language, without pre-testing the reliability and validity of the new Dutch scale. Next to that, the decision was made to delete item one of the affective team commitment scale due to a low Cronbach's alpha. According to Pallant (2010) it is common that short scales have lower reliability

scores. However, removing item one from the scale, drastically improved the reliability of the scale, and therefore item one was excluded from the affective team commitment scale (Cronbach's α .621 > .751). This resulted in only two items which measured the entire affective team commitment construct, creating a validity issue by altering the original scale. Another limitation about the set-up of this study is its cross-sectional design. Due to the fact that the results are gathered in one moment of time it is difficult to make causal inference. In the case of this study the causal relationships are based on extensive literature review and previous conducted research. However, reverse causality seems possible. The relationship between team HIWP and employee outcomes is found to be reciprocal (Butts et al., 2009). The team HIWP an organization provides can influence the employees and can affect employee well-being positively or negatively, which can alter the way employee perceived the team HIWP (Den Hartog et al., 2013; Nishii, LePak, & Schneider, 2008; Piening, Baluch, & Salge, 2013). Next to that, before a high involvement work system is perceived as effective, this can take up to several years (Piening et al., 2013). Therefore, a recommendation for future research will be combining a multilevel study with a longitudinal design. A longitudinal design could provide evidence for confirming team HIWP preceding employee well-being.

Second, the TMX variable could not be aggregated to team scores, because the construct explained little variance at the team level. The TMX construct was more individually determined than was hypothesized and previous literature reviews suggested (Keup et al, 2004; Seers, 1989; Heuselid, 1995). This might have to do with the size of the teams that were in the sample. According to Belbin (2011) teams ideally exist of four team members, in this research the largest amount of team members in a team was 62. These teams probably existed of sub-teams within the larger team. Team members of various sub-teams could be grouped together and these answers of not corresponding sub-teams could be reason for the low ICC1 score of TMX. TMX was therefore more difficult to measure as a team construct. For future research it would be interesting to sample teams which are smaller in size in order to be able to aggregate individual-level TMX scores into team-level TMX scores and investigate the team aspect of TMX on the team HIWP – well-being relationship.

Third, the sample of this research was context-specific. Specifically, this sample was organization and sector specific. The sample originated from one Dutch healthcare organization, which started working within semi-autonomous work teams. Next to that, employees working within the healthcare sector rely heavily on the support and contribution of their team members in caring for the patient, and their own individual well-being. Thus, teams are important components for organizations operating within the healthcare sector. Therefore, the sample was not generalizable to other team compositions

and organizations working within other sectors, nor to organizations and sectors in other countries. For future research it is advisable to increase the width and scope of the sample by adding more organizations of the specific sector(s) of interest. Another limitation directed at the specific sample was the fact that that the majority of the sample were female (85.22%), because this particular healthcare organizations employed more women than male. Because of the uneven distribution of male and female in the sample it was difficult to make specific statements directed at the control variable gender. However, the female - male ratio of the sample was indeed a correct representation of the population. Within the healthcare sector, female are the most predominant employees. Generalizability of gender is therefore sector specific and when conducting future research it is important to examine the female - male ratio of the sample and the population.

Fourth, bundles of reinforcing HR practices were conceptualized into all-encompassing variable team HIWP. This conceptualization of team HIWP reflected the PIRK attributes (Vandenberg et al., 1999). However, future research creating sub-bundles of several additional practices, such as empowerment enhancing bundles, skill enhancing bundles and motivation enhancing bundle (Subramony, 2009), could identify effect differences within and between these sub-bundles on intra-team processes and employee well-being, as well as on other variables of interest.

The last limitation is directed at the intra-team processes. In this current research the intra-team processes TMX and team workload sharing were investigated. Including more types of intra-team processes could generate more insight in the mediating mechanisms of these constructs on the team HIWP and employee well-being relationship. Therefore, it would be interesting for future studies to add more intra-team processes (e.g. relational coordination) in their research. This in order to acumen understanding and awareness in how individual employee's health and happiness at work could be effectively managed (Grant et al., 2007) by gaining insight in the mediating mechanisms that take place within this relationship.

Practical implications

Despite of the limitations of this study, this study provided insight in how organizations' HR practices can have a positive influence on increasing employee well-being by engaging these employees in team HIWP. When an employee perceives team HIWP, the employee is more likely to share their workload with their team members, and this will increase individual employee well-being. First of all, the well-being of team members could be influenced by the way they perceive the team HIWP. Herein, the

organization can influence the way team HIWP is perceived, for example by the way how HR practices are implemented in the organization. However, discrepancies between the intended, actual and perceived HR practices of the healthcare organization could occur (Wright & Nishii, 2007). Therefore, it is important for organizations to limit those discrepancies, in order for the team members to perceive the HR practices as the way they were intended, and experience the beneficial effects the team HIWP can have on their well-being. Hence, HR practices need to be implemented in the organization as they were intended. Implementation as such may require coordination of incentives, training, communication and information technology systems for the entire organization (Wright & Nishii, 2007), as well as alignment in the availability of HR practices across the organization (Den Hartog, Boon, Verbug, & Croon, 2013). In addition, employees also need to be prepared for the change, for example by organizational change interventions such as an organization structure intervention, in order to accept the change. Although, individual's within-organizations can differ in their perceptions and reactions, this within-organization variance represents true variance (Wright & Nishii, 2007).

Secondly, since team workload sharing has shown to create a link between HIWP and employee health and happiness, it is important to invest in the creation of optimal work teams for team members to thrive in. For example, by carefully considering the optimal team size of the care team, or by carefully selecting team members who are complementary to each other's skills in taking care of the patients' needs. This, in order to improve the well-being of the individual team member, and thereby subsequently increasing organizational and team effectiveness.

All in all, managing well-being through HR practices and intra-team processes could create a foundation for organizations to effectively manage employee well-being by keeping them happy and healthy. This is beneficiary for increasing employee affective team commitment and decreasing stress levels of employees. Especially in the healthcare sector, where budget cuts and continuous work pressures (stress) are of major issue (CBS, 2013), happy and healthy workers are of ever greater importance. Next to that, the effectiveness of organizations can be enhanced by implementing team HIWP in semi-autonomous work teams in the healthcare sector. Results have indicated that employee well-being could be enhanced which subsequently reduces turnover rates and absenteeism, and enhance job satisfaction (Beck & Wilson, 1999; Schaufeli & Peeters, 2000), indicating a bilateral effect.

References

Albanese, R., & Van Fleet, D. D. (1985). Rational behavior in groups: The free-riding tendency. *Academy of Management Review, 10*(2), 244-255.

Allen, N. J., & Meyer, J. P. (1990). The measurement and antecedents of affective, continuance, and normative commitment to the organization. *Journal of Occupational Psychology, 63*(1), 1-18. doi:10.1111/j.2044-8325.1990.tb00506.x

Amphia Ziekenhuis. (2010). Samen beter verder. Strategisch beleidsplan 2010-2015 [Policy]. Retrieved on May 10, 2015 from http://www.amphia.nl/OverAmphia/Documents/Amphia%20Ziekenhuis%20-%20Strategisch%20beleidsplan%20Samen%20Beter%20Verder.PDF

Aselage, J., & Eisenberger, R. (2003). Perceived organizational support and psychological contracts: A theoretical integration. *Journal of Organizational Behavior, 24*(5), 491-509. doi:10.1002/job.211

Appelbaum, E., Bailey, T., Berg, P. & Kallegerg, A. (2000). *Manufacturing advantage: Why high-performance work systems pay off.* Ithaca, NY: Cornell University Press.

Bakker, A. B., Demerouti, E., & Euwema, M. C. (2005). Job resources buffer the impact of Job demands on burnout. *Journal of Occupational Health Psychology, 10*(2), 170-180. doi:10.1037/1076-8998.10.2.170

Bakker, A. B, Killmer, C. H., Siegrist, J., & Schaufeli, W. B. (2000) Effort-reward imbalance and burnout among nurses. *Journal of Advanced Nursing, 31*(4), 884-891. doi:10.1046/j.1365-2648.2000.01361.x

Bamberger, P., & Meshoulam, I. (2000). Human re-source strategy. Newbury Park, CA: Sage.

Bartko, J. J. (1976). On various intraclass correlation reliability coefficients. *Psychological Bulletin, 83*(5), 762-765. doi:10.1037/0033-2909.83.5.762

Barlett, M. S. (1954). A note on the multiplying factor for various chi square approximations. *Journal of the Royal Statistical Society, 16*(2), 296-298.

Barrick, M. R., Bradley, B. H., & Colbert, A. E. (2007). The moderating role of top management team interdependence: Implications for real teams and working groups. *Academy of Management Journal, 50*(3), 544-557. doi:10.5465/AMJ.2007.25525781

Barrick, M. R., Stewart, G. L., Neubert, M. J., & Mount, M. K. (1998). Relating member ability and personality to work-team processes and team effectiveness. *Journal of applied psychology*, *83*(3), 377-391. doi:10.1037/0021-9010.83.3.377

Batt, R. (1999). Work organization, technology, and performance in customer service and sales. *Industrial and Labor Relations Review, 52*(4), 539-552

Becker, B.E., & Huselid, M. A. (1998). High performance work systems and firm performance: A synthesis of research and managerial implications. In G. R. Ferris (Ed.), *Research in personnel and human resources management (pp.* 53-101). Stamford, CT: JAI Press.

Belbin, M. R. (2011). Size matters: how many make the ideal team? [Blog post]. Retrieved on October 7, 2015 from http://www.belbin.com/rte.asp?id=73&pressid=31

Benson, G. S., Young, S. M., & Lawler III, E. E. (2006). High-involvement work practices and analysts' forecasts of corporate earnings. *Human Resource Management*, *45*(4), 519–537. doi:10.1002/hrm.20130

Bettencourt, B. A., & Dorr, N. (1997). Collective self-esteem as a mediator of the relationship between allocentrism and subjective well- being. *Personality and Social Psychology Bulletin, 23*(9), 963–972. doi:10.1177/0146167297239005

Blau, G. (1964). *Exchange and power in social life*. New York: Wiley.

Bliese, P. D. (2000). Within-group agreement, non-independence, and reliability: Implications for data aggregation and analysis. In K. J. Klein & W. Kozlowski (Ed.), *Multilevel Theory, Research, and Methods in Organizations* (pp. 349-381). San Francisco, CA: Jossey-Bass, Inc.

Bollen, K., & Hoyle, R. H. (1990). Perceived cohesiveness: A conceptual and empirical examination. *Social Forces, 69*(2), 479-504.

Boxall, P., & Macky, K. (2009). Research and theory on high-performance work systems: progressing the high-involvement stream. *Human Resource Management Journal*, *19*(1), 3-23. doi:10.1111/j.1748-8583.2008.00082.x

Butts, M. M., Vandenberg, R. J., DeJoy, D. M., Schaffer, B. S., & Wilson, M. G. (2009). Individual reactions to high involvement work processes: investigating the role of empowerment and perceived organizational support. *Journal of Occupational Health Psychology, 14*(2), 122-136. doi:10.1037/a0014114

Camerino, D., Conway, P., Van der Heijden, B., Estryn-Behar, E., Consonni, D., Gould, D., Hasselhorn, H., & the NEXT Study Group. (2006). Low-perceived work ability, ageing and intention to leave nursing: a comparison among 10 European countries. *Journal of Advanced Nursing, 56*(5), 542-552. doi:10.1111/j.1365-2648.2006.04046.x

Campion, M. A., Medsker, G. J., & Higgs, A. C. (1993). Relations between work group

characteristics and effectiveness: Implications for designing effective work groups. *Personnel psychology*, *46*(4), 823-847. doi:10.1111/j.1744-6570.1993.tb01571.x

Carless, S. A., & De Paola, C. (2000). The measurement of cohesion in work teams. *Small group research*, *31*(1), 71-88. doi:10.1177/104649640003100104

Cartwright, D. (1968). The nature of group cohesiveness. In D. Cartwright & A. Zander (Ed.), *Group dynamics, Research and Theory* (pp. 91-109). New York: Harper & Row.

Catell, R.B. (1966). The scree test for numbers of factors. *Multivariate Behavioral Research, 1*(2), 245-276. doi:10.1207/s15327906mbr0102_10

Centraal Bureau voor de statistiek (CBS). (2013). Gezondheid en zorg in cijfers [Report]. Retrieved on May 13, 2015 from http://www.cbs.nl/NR/rdonlyres/B3173C43-368C-4190-8D9C88E6BBF2CBE8/0/2013c156puberr.pdf

Centraal Bureau voor de statistiek (CBS). (2012). Sociale Monitor; 1990-2011. Retrieved on May 13, 2015 from http://statline.cbs.nl/StatWeb/publication/?VW=T&DM=SLNL&PA=70115ned&D1=0,3-4&D2=a&D3=a&HD=081106-1151&HDR=T,G1&STB=G2

Centraal Bureau voor de statistiek (CBS). (2015). Ziekenhuisopnamen. Retrieved on May 13, 2015 from http://www.cbs.nl/nl-NL/menu/themas/gezondheid-welzijn/cijfers/extra/2010-ziekenhuisopname.htm

Cheng, G. H. L., & Chan, D. K. S. (2008). Who suffers more from job insecurity? A meta-analytic review. *Applied Psychology*, *57*(2), 272-303. doi:10.1111/j.1464-0597.2007.00312.x

Collins, A., & Frankenhaeuser, M. (1978). Stress responses in male and female engineering students. *Journal of human stress*, *4*(2), 43-48. doi:10.1080/0097840X.1978.9934986

Combs, J., Liu, Y., Hall, A., & Ketchen, D. (2006). How much do high-performance work practices matter? A meta-analysis of their effects on organizational performance. *Personnel Psychology*, *59*(3), 501-528. doi:10.1111/j.1744-6570.2006.00045.x

Cooper, C. L., & Cartwright, S. (1994). Healthy mind; healthy organization—A proactive approach to occupational stress. *Human relations*, *47*(4), 455-471.

Courtenay, W. H. (2000). Constructions of masculinity and their influence on men's well-being: a theory of gender and health. *Social science & medicine*, *50*(10), 1385-1401.

Cropanzano, R., & Mitchell, M. S. (2005). Social exchange theory: An interdisciplinary review. *Journal of management*, *31*(6), 874-900. doi: 10.1177/0149206305279602

Crocker, K., Luhtanen, R., Blaine, B., & Broadnax, S. (1994). Collective self-esteem and

psychological well-being among White, Black, and Asian college students. *Personality and Social Psychology Bulletin, 20*(5), 503-513. doi:10.1177/0146167294205007

Cummings, T. G. (1978). Self-regulating work groups: A socio-technical synthesis. *Academy of management Review*, *3*(3), 625-634.

Danna, K., & Griffin, R. W. (1999). Health and Well-Being in the Workplace: A Review and Synthesis of the Literature. *Journal of Management, 25*(3), 357-384. doi:10.1177/014920639902500305

Den Hartog, D. N., Boon, C., Verburg, R. M., & Croon, M. A. (2013). HRM, Communication, Satisfaction, and Perceived Performance A Cross-Level Test. *Journal of Management*, *39*(6), 1637-1665. doi:10.1177/0149206312440118

Dembe, A. E., Erickson, J. B., Delbos, R. G., & Banks, S. M. (2005). The impact of overtime and long work hours on occupational injuries and illnesses: new evidence from the United States. *Occupational and environmental medicine*, *62*(9), 588-597. doi:10.1136/oem.2004.016667

Demerouti, E., Bakker, A. B., Nachreiner, F., & Schaufeli, W. B. (2001). The job demands-resources model of burnout. *Journal of Applied psychology*, *86*(3), 499-512. doi:10.1037/0021-9010.86.3.499

Emerson, R. M. (1976). Social exchange theory. *Annual review of sociology*, *2*(1), 335-362. doi:10.1146/annurev.so.02.080176.002003

Ekeh, P. P. (1974). *Social exchange theory: The two traditions*. Cambridge, MA: Harvard University Press.

Erez, A., Lepine, J. A., & Elms, H. (2002). Effects of rotated leadership and peer evaluation on the functioning and effectiveness of self-managed teams: a quasi-experiment. *Personnel Psychology*, *55*(4), 929-948. doi:10.1111/j.1744-6570.2002.tb00135.x

Eisenberger, R., Huntington, R., Hutchison, S., & Sowa, D. (1986). Perceived organizational support. Journal of Applied Psychology, 71, 500-507. doi:10.1037/12318-000

Evans, W. R., Davis, W. D. (2005). High-performance work systems and organizational performance: The mediating role of internal social structure. *Journal of Management, 31*(5), 758-775. doi:10.1177/0149206305279370

Fincham, J. E. (2008). Response Rates and Responsiveness for Surveys, Standards and the Journal. *American Journal of Pharmaceutical Education, 72*(2), 1-3. doi:10.5688/aj720243

Fox, W. M. (1995). Sociotechnical system principles and guidelines: past and present. *Journal of*

Applied Behavioral Science, 31(1), 91-105. doi:10.1177/0021886395311009

Gardner, T. M., Wright, P. M., & Moynihan, L. M. (2011). The impact of motivation, empowerment, and skill-enhancing practices on aggregate voluntary turnover: The mediating effect of collective affective commitment. *Personnel psychology*, *64*(2), 315-350. doi:10.1111/j.1744-6570.2011.01212.x

George, J. M., and Brief, A. P. (1992). Feeling good-doing good: A conceptual analysis of the mood at work-organizational spontaneity relationship, *Psychological Bulletin, 112*(2), 310-329. doi:10.1037/0033-2909.112.2.310

Gittell, J. H., K. Fairfield, B. Bierbaum, W. Head, R. Jackson, M. Kelly, R. Laskin, S. Lipson, J. Siliski, T. Thornhill, J. Zuckerman. (2000). Impact of relational coordination on quality of care, postoperative pain and functioning, and the length of stay: A nine hospital study of surgical patients. *Medical Care, 38*(8), 807-819. doi:10.1097/00005650-200008000-00005

Gladstein, D.L. (1984). Groups in context: A model of task group effectiveness. *Administrative Science Quarterly, 29*(4), 466-517. doi:10.2307/2392936

Goodwin, G. F., Burke, C. S., Wildman, J. L., & Salas, E. (2009). Team effectiveness in complex organizations: An overview. In E. Salas, G. F Goodwin, & C. S. Burke (Ed.), *Team effectiveness in complex organizations: Cross-disciplinary perspectives and approaches* (pp. 3-16). New York, NY: Taylor & Francis group.

Grant, A. M., Christianson, M. K. and Price, R. H. (2007). Happiness, health, or relationships? Managerial practices and employee well-being tradeoffs. *Academy of Management Perspectives, 21*(3), 51-63. doi:10.5465/AMP.2007.26421238

Griffith, J. (1988). Measurements of group cohesion in U.S. army units. *Basic and Applied Psychology, 9*(2), 149-171

Guthrie, J. P. (2001). High-involvement work practices, turnover, and productivity: Evidence from New Zealand. *Academy of management Journal*, *44*(1), 180-190. doi:10.2307/3069345

House, J. S. (1981). *Work stress and social support.* Massachusetts, MA: Addison-Wesley Publishing Company.

Ilgen, D. R., Hollenbeck, J. R., Johnson, M., & Jundt, D. (2005). Teams in organizations: From input-process-output models to IMOI models. *Annual Review of Psychology, 56*(1), 517-543. doi: 10.1146/annurev.psych.56.091103.070250

Isen, A. M. and Baron, R. A. (1991). Positive affect as a factor in organizational behavior. In B. M. Staw, & L. L. Cummings (Ed.), *Research in Organizational Behavior* (pp. 1-53). Greenwich, CT: JAI.

Hackman, J. R. (1987). The design of work teams. In J. W. Lorsch (Ed.), *Handbook of organizational Behavior* (pp. 315-342). Englewood Cliffs, NJ: Prentice-Hall.

Hansen, C. D., & Andersen, J. H. (2008). Going ill to work–What personal circumstances, attitudes and work-related factors are associated with sickness presenteeism? *Social science & medicine*, *67*(6), 956-964. doi:10.1016/j.socscimed.2008.05.022

Harris, K. J., Kacmar, K. M. (2006). Too Much of a Good Thing: The Curviliniar Effect of Leader-Member Exchange on Stress. *The Journal of Social Psychology, 146*(1), 65-84. doi:10.3200/SOCP.146.1.65-84

Heck, R. H., Thomas, S. L., & Tabata, L. N. (2010). *Multilevel and longitudinal modeling with IBM SPSS.* New York, NY: Routledge.

In voor zorg. (2013). *Zelfsturende teams in de thuiszorg. Handleiding voor managers, projectleiders en bestuurders* [manual]. Retrieved on June 8, 2015 from http://www.invoorzorg.nl/docs/ivz/VIL%2013046%20Publicatie%20Prototype.pdf

Jackson, J. M., & Williams, K. D. (1985). Social loafing on difficult tasks: Working collectively can improve performance. *Journal of Personality and Social Psychology*, *49*(4), 937-942. doi:10.1037/0022-3514.49.4.937

Jensen, J. M., Patel, P. C., & Messersmith, J. G. (2013). High-performance work systems and job control: Consequences for anxiety, role overload, and turnover intentions. *Journal of Management, 39*(6), 1699-1724. doi:10.1177/0149206311419663

Junior, L. A., Novaski, O. (2011). Semi-autonomous work team implementation in manufacturing cells using a simplified project management. *Business and Economics Journal, 27*, 1-11.

Kaiser, H. (1960). The application of electronic computers to factor analysis. *Educational and Psychological Measurement, 20*(1), 141-151. doi:10.1177/001316446002000116.

Kaiser, H. (1970). A second generation Little Jiffy. *Psychometrika, 35*(4), 401-415.

Kahn, R. L., & Boysiere, P. (1994). Stress in Organizations. In M. D. Dunette, J. M. Hough, & H. C. Triandis (Ed.), *Handbook of Industrial and Organizational Psychology* (pp. 573-650). Palo Alto, CA: Consulting Psychologist Press.

Katzenbach, J. R., & Smith, D. K., (1993). The discipline of teams. *Harvard Business Review, 71*(1), 111-120.

Keup, L., Bruning, N. S., & Seers, A. (2004). Members, leaders and the team: Extending LMX to co-worker relationships. *The Canadian Journal of Administrative Sciences*, *21*(1), 1-14. doi:10.1111/j.1936-4490.2004.tb00319.x

Kerkhof, K., & Bloodshoofd, G. (2010). Compassiemoeheid. Amsterdam: Elsevier Gezondheidszorg.

Kerr, N. L. (1983). Motivation losses in small groups: A paradigm for social dilemma analysis. *Journal of Personality and Social Psychology, 45*(4), 819-828. doi:10.1037/0022-3514.45.4.819

Klein, K. J., & Kozlowski, S. W. J. (2000). From micro to meso: steps in conceptualizing and conducting multilevel research. *Organizational Research Methods*, *3*(3), 211-236.

Langfred, C. W., & Shanley, M. T. (2001). Small group research: autonomous teams and progress on issues of context and levels of analysis. In R. Golembiewski (Ed.), *Handbook of Organizational Behavior* (pp. 81-112). New York, NY: Marcel Dekker.

Lawler, E. E. (1999). Employee involvement makes a difference. *Journal for Quality and Participation, 22*, 18-28.

Lazarus, R. S. (1966). *Psychological stress and the coping process.* New York, NY: McGraw-Hill.

Lazarus, R. S., and Folkman, S. (1984). *Stress, Appraisal and Coping*, New York, NY: Springer.

LePine, J. A., Piccolo, R. F., Jackson, C. L., Mathieu, J. E., & Saul, J. R. (2008). A meta-analysis of teamwork processes: tests of a multidimensional model and relationships with team effectiveness criteria. *Personnel Psychology*, *61*(2), 273-307. doi:10.1111/j.1744-6570.2008.00114.x

Liden, R. C., Wayne, S. J., & Sparrowe, R. T. (2000). An examination of the mediating role of psychological empowerment on the relations between the job, interpersonal relationships, and work outcomes. *Journal of Applied Psychology, 85*(3), 407-416. doi:10.1037/0021-9010.85.3.407

Liu, Y., Keller, R. T., & Shih, H. A. (2011). The impact of team-member exchange, differentiation, team commitment, and knowledge sharing on R&D project team performance. *R&D Management*, *41*(3), 274-287. doi:10.1111/j.1467-9310.2011.00636.x

MacDuffie, J. P. (1995). Human resource bundles and manufacturing performance: Organizational logic and flexible production systems in the world auto industry. *Industrial Labor and Relations Review*, *48*(2), 197-221

MacKinnon, D. P., Fairchild, A. J. & Fritz, M. S. (2007). Mediation Analysis. *The annual review of psychology, 58(1)*, 593-614. doi: 10.1146/annurev.psych.58.110405.085542

Macky, K., & Boxall, P. (2008). High-involvement work processes, work intensification and employee well-being: A study of New Zealand worker experiences. *Asia Pacific Journal of Human Resources, 46*(1), 38-55. doi:10.1177/1038411107086542

Marks, M. A., Mathieu, J. E., & Zaccaro, S. J. (2001). A temporally based framework and

taxonomy of team processes. *Acedemy of Management Review, 26*(3), 356-376.

Mathieu, J. E., & Zajac, D. M. (1990). A review and meta-analysis of the antecedents, correlates, and consequences of organizational commitment. *Psychological bulletin*, *108*(2), 171-194. doi:10.1037/0033-2909.108.2.171

Mayes, B. T., Barton, M. E., & Ganster, D. C. (1991). *An exploration of the moderating effect of age on job stressor-employee strain relationships*. *Journal of Social Behavior and Personality, 6*(7), 269-308.

McGrath, J. E. (1964). *Social psychology: A brief introduction.* New York, NY: Holt, Rinehart & Winston.

Mendelson, M. B., Turner, N., & Barling, J. (2011). Perceptions of the presence and effectiveness of high involvement work systems and their relationship to employee attitudes: A test of competing models. *Personnel Review*, *40*(1), 45-69. doi:10.1108/00483481111095519

Meyer, J. P., & Herscovitch, L. (2001). Commitment in the workplace: Toward a general model. *Human Resource Management Review, 11*(3), 299-326. doi:10.1016/S1053-4822(00)00053-X

Moideenkutty, U., Blau, G., Kumar, R. & Nalakth, A. (2001). Perceived organizational support as a Mediator of the relationship of perceived situational factors to affective organizational commitment. *Applied Psychology: an international review, 50*(4), 615-634. doi:10.1016/s0001-8791(02)00048-9

Molm, L. D. (1994). Dependence and risk: Transforming the structure of social exchange. *Social Psychological Quarterly, 57*(3), 163-176. doi:10.2307/2786874

Molm, L. D., Schaefer, D. R., & Collett, J. L. (2007). The value of reciprocity. *Social Psychology Quarterly, 70*(2), 199-217. doi:10.1177/019027250707000208

Monat, S., & Lazarus, R. (1991). *Stress and Coping: An Anthology*. New York, NY: Columbia University Press

Mowday, R. T., Porter, L. W., & Steers, R. M. (1982). *Employee-organization linkages: The psychology of commitment, absenteeism, and turnover.* New York: Academic Press.

Nishii, L. H., Lepak, D. P., & Schneider, B. (2008). Employee attributions about the "why" of HR practices: Their effects on employee attitudes and behaviors, and customer satisfaction. *Personnel Psychology*, *61*, 503-545. doi:10.1111/j.1744-6570.2008.00121.x

Pallant, J. (2010). *SPSS survival manual: a step by step guide to data analysis using SPSS.* Maidenhead: McGraw-Hill.

Parker, D. F., & DeCotiis, T. A. (1983). Organizational determinants of job stress. *Organizational behavior and human performance*, *32*(2), 160-177. doi:10.1016/0030-5073(83)90145-9

Parker, S. K., Wall, T. D., & Cordery, J. L. (2001). Future work design research and practice: Towards an elaborated model of work design. *Journal of occupational and organizational psychology*, *74*(4), 413-440. doi:10.1348/096317901167460

Peccei, R. (2004). *Human Resource Management and the Search for the Happy Workplace. Inaugural Address.* Rotterdam: Erasmus Research Institute of Management.

Peccei, R., Van de Voorde, K. & Van Veldhoven, M. (2013). HRM, well-being and performance: A theoretical and empirical review. In D. E. Guest, J. Paauwe, & P. M. Wright (Ed.), *Human resource management and performance: Achievements and Challenges,* (pp. 15-46). Oxford: Wiley-Blackwell.

Pelled, L. H., Eisenhardt, K. M., & Xin, K. R. (1999). Exploring the black box: An analysis of work group diversity, conflict, and performance. *Administrative Science Quarterly, 44*(1), 1-28. doi:10.2307/2667029

Pfeffer, J., & Veiga, J. F. (1999). Putting People First for Organizational Success. *Academy of Management Executive, 13*(2)*,* 37-48. doi:10.5465/AME.1999.1899547

Piening, E. P., Baluch, A. M., & Salge, T. O. (2013). The relationship between employees' perceptions of human resource systems and organizational performance: Examining mediating mechanisms and temporal dynamics. *Journal of Applied Psychology*, *98*(6), 926-947.

Porter, L. W., & Smith, F. J. (1970). *The etiology of organizational commitment* [Unpublished Manuscript]. Irvine, CA: University of California.

Prieto, I. M., & Pilar Pérez Santana, M. (2012). Building ambidexterity: The role of human resource practices in the performance of firms from Spain. *Human Resource Management*, *51*(2), 189-211. doi:10.1002/hrm.21463

Preacher, K. J., Zyphur, M. J., & Zhang, Z. (2010). A general multilevel SEM framework for assessing multilevel mediation. *Psychological methods, 15*(3), 209-233. doi:10.1037/a0020141.

Ramsay, H., Scholarios, D., & Harley, B. (2000). Employees of high-performance work systems: testing inside the black box. *British Journal of Industrial Relations, 38*(4), 501-531. doi:10.1111/1467-8543.00178

Riordan, C. M., & Vandenberg, R. J. (1994). A central question in cross-cultural research: Do employees of different cultures interpret work-related measures in an equivalent manner? *Journal of Management*, *20*(3), 643-671. doi:10.1177/014920639402000307

Ritchie, J., & Lewis, J. (2003). *Qualitative research practice: A guide for social science students and researchers.* London: Sage.

Schaufeli, W. B., & Peeters, M. C. (2000). Job Stress and Burnout among Correctional Officers: A Literature Review. *International Journal of Stress Management, 7*(1), 19-48.

Schippers, M.A., Den Hartog, D.N., Koopman, P.L., & Wienk, J.A. (2003). Diversity and team outcomes: the moderating effects of outcome interdependence and group longevity and the mediating effect of reflexivity. *Journal of Organizational Behaviour, 24*(6), 779-802. doi:10.1002/job.220

Searle, R., Den Hartog, D. N., Weibel, A., Gillespie, N., Six, F., Hatzakis, T., & Skinner, D. (2011). Trust in the employer: the role of high-involvement work practices and procedural justice in European organizations. *The International Journal of Human Resource Management*, *22*(5), 1069-1092. doi:10.1080/09585192.2011.556782

Seers, A. (1989). Team-Member Exchange Quality: A New Construct for Role-Making Research. *Organizational Behavior and Human Decision Processes*, *43*(1), 118-135. doi:10.1016/0749-5978(89)90060-5

Shepperd, J. A. (1993). Productivity loss in performance groups: A motivation analysis. *Psychological Bulletin, 113*(1), 67-81. doi:10.1037/0033-2909.113.1.67

Sheldon, K. M., & Bettencourt, B. (2002). Psychological need-satisfaction and subjective well-being within social groups. *British Journal of Social Psychology*, *41*(1), 25-38. doi:10.1348/014466602165036

Sobel, M.E. (1982). Asymptotic confidence intervals for indirect effects in structural equations models. In S. Leinhardt (Ed.), *Sociological Methodology* (pp. 290-313). San Francisco: Jossey-Bass.

Steiner, I. D. (1972). *Group process and productivity.* New York: Academic Press.

Suh, E., Diener, E., Oishi, S., & Triandis, H. C. (1998). The shifting basis of life satisfaction judgments across cultures: Emotion vs. norms. *Journal of Personality & Social Psychology, 74*(2), 482-493. doi:10.1037/0022-3514.74.2.482

Tabachnick, B. G. & Fidell, L. S. (2007). *Using multivariate statistics*. Boston: Pearson Education.

Tajfel, H. (1970). Experiments in Intergroup Discrimination. *Scientific American*, *223*(5), 96-102.

Tett, R. P., & Meyer, J. P. (1993). Job satisfaction, organizational commitment, turnover intention, and turnover: path analyses based on meta-analytic findings. *Personnel psychology*, *46*(2), 259-293. doi:10.1111/j.1744-6570.1993.tb00874.x

Thompson, P., & Harley, B. (2007). HRM and the worker: Labor process perspectives. In P. Boxall, J. Purcell, & P. Wright (Ed.), *The Oxford Handbook of Human Resource Management* (pp. 147-165). Oxford and New York: Oxford University Press.

Tuckey, M. R., Bakker, A. B., & Dollard, M. F. (2012). Empowering leaders optimize working conditions for engagement: A multilevel study. *Journal of occupational health psychology, 17*(1), 15-27. doi:10.1037/a0025942

Van Buren, M. E., & Werner, J.M. (1996). High performance work systems. *Business and Economic Review, 43*(1), 15-23.

Vandenberg, R. J., Richardson, H., & Eastman, L. (1999). High involvement organizations: Their antecedents and consequences. *Groups & Organizations Management, 24*(3), 300-339. doi:10.1177/1059601199243004

Van de Voorde, K., Paauwe, J., & Van Veldhoven, M. (2012). Employee Well-being and the HRM–Organizational Performance Relationship: A Review of Quantitative Studies. *International Journal of Management Reviews*, *14*(4), 391-407. doi:10.1111/j.1468-2370.2011.00322.x

Vanhala, S., von Bonsdorff, M. E., & Janhonen, M. (2009). Impact of high involvement work practices on company performance and employee well-being. In *IIRA world congress, conference proceedings.*

Walster, E., Walster, G. W., & Berscheid, E. (1978). *Equity: Theory and research.* Boston: Allyn & Bacon.

Warr, P. B. (1987). *Work, Unemployment, and Mental Health*. Oxford: Clarendon Press.

Wiersema, M. F., & Bantel, K. A. (1992). Top management team demography and corporate strategic change. *Academy of Management journal, 35*(1), 91-121. doi:10.2307/256474

Wood, S., Van Veldhoven, M., Croon, M., & De Menezes, L. M. (2012). Enriched job design, high involvement management and organizational performance: The mediating roles of job satisfaction and well-being. *Human relations*, *65*(4), 419-445. doi:10.1177/0018726711432476

Workman, M. (2003). Results from organizational development interventions in a technology call center. *Human Resource Development Quarterly*, *14*(2), 215-230. doi:10.1002/hrdq.1061

Workman, M., & Bommer, W. (2004). Redesigning computer call center work: a longitudinal field experiment. *Journal of Organizational Behavior*, *25*(3), 317-337. doi:10.1002/job.247

Wright, M. (2000). High involvement work systems and economic performance: a review of recent research. Retrieved on June 12, 2015 from http://www.eurofound.europa.eu/observatories/eurwork/articles/high-involvement-work-systems-and-economic-performance-a-review-of-recent-research

Wright, P. M. & Nishii, L. H. (2007). *Strategic HRM and organizational behavior: Integrating multiple levels of analysis* (CAHRS Working Paper #468). Ithaca, NY: Cornell University, School of Industrial and Labor Relations, Center for Advanced Human Resource Studies. Retrieved on October 30, 2015 from http://digitalcommons.ilr.cornell.edu/cgi/viewcontent.cgi?article=1469&context=cahrswp

Appendix A: Results of Factor Analysis and Cronbach's alpha

Table A1: Results of factor analysis and Cronbach's alpha of HIWP scale

Item		
1	Het MTL communiceert een duidelijke missie voor de organisatie en hoe ons team bijdraagt aan het bereiken ervan.	.654
2	Het MTL informeert ons meestal tijdig over veranderingen in het beleid die effect hebben op ons team.	.758
3	Het MTL neemt de tijd om aan medewerkers uit te leggen wat de redenering achter belangrijke beslissingen is.	.739
4	De kanalen voor communicatie van medewerkers met het hogere management zijn effectief.	.631
5	Mijn team heeft genoeg vrijheid om zelf te bepalen hoe wij het werk uitvoeren.	.583
6	Mijn team krijgt genoeg ruimte om het werk zelfstandig uit te voeren en zelf beslissingen te maken over het werk.	.615
7	De leden van mijn team hebben voldoende baangerelateerde training ontvangen.	.568
8	De leden van mijn team zijn tevreden met de kwaliteit van de beschikbare trainings- en ontwikkelingsprogramma's.	.629
9	Er is een sterk verband tussen hoe goed leden van mijn team presteren en het krijgen van erkenning en waardering.	.530
	KMO	.756
	Bartlett's sphericity significance	.000
	Eigenwaarde	3.665
	Variance explained	40.723
	Cronbach's α	.816

Table A2: Results of factor analysis and Cronbach's alpha of TMX scale

Item		
1	Ik geef mijn teamgenoten vaak suggesties voor betere werkmethoden.	.313
2	Mijn teamgenoten laten het me over het algemeen weten wanneer ik iets doe dat hun werk makkelijker (of moeilijker) maakt.	.565
3	Ik laat het mijn teamgenoten gewoonlijk weten wanneer zij iets doen wat mijn werk makkelijker (of moeilijker) maakt.	.490
4	Mijn teamgenoten erkennen mijn potentieel.	.594
5	Mijn teamgenoten begrijpen mijn problemen en behoeften.	.639
6	Ik ben flexibel in het wisselen van taakverantwoordelijkheden om het mijn teamgenoten makkelijker te maken.	.499
7	In drukke situaties vragen mijn teamgenoten mij om hulp.	.625
8	In drukke situaties bied ik vrijwillig aan om anderen in mijn team te helpen.	.725
9	Ik ben bereid om mijn teamgenoten te helpen werk af te maken dat aan hen is toegewezen.	.726
10	Mijn teamgenoten zijn bereid om mij te helpen werk af te maken dat aan mij is toegewezen.	.695
	KMO	.769
	Bartlett's sphericity significance	.000
	Eigenwaarde	3.594
	Variance explained	35.944
	Cronbach's α	.785

Table A3: Results of factor analysis and Cronbach's alpha of workload sharing scale

Item		
1	Mijn teamgenoten vervullen op adequate wijze hun verantwoordelijkheden binnen het team.	.856
2	Mijn teamgenoten leveren elk hun aandeel aan het werk van het team.	.812
3	Mijn teamgenoten nemen hun verantwoordelijkheid voor hun werk, zelfs als ze deze zouden kunnen ontlopen.	.863
4	Mijn teamgenoten zetten zich nooit met opzet maar half in voor het werk binnen het team.	.779
5	Het minder prettige werk wordt eerlijk binnen het team verdeeld.	.748
	KMO	.851
	Bartlett's sphericity significance	.000
	Eigenwaarde	3.304
	Variance explained	66.078
	Cronbach's α	.867

Table A4: Results of factor analysis and Cronbach's alpha of affective team commitment scale

Item		
1	Ik voel me als een deel van de familie bij dit team.	.900
2	Ik heb sterk het gevoel dat ik bij dit team thuishoor.	.900
	KMO	.500
	Bartlett's sphericity significance	.000
	Eigenwaarde	1.622
	Variance explained	81.079
	Cronbach's α	.751

Table A5: Results of factor analysis and Cronbach's alpha of stress scale

Item		
1	Ik voel me onrustig door mijn werk.	.751
2	Ik voel me schuldig als ik vrij neem van mijn werk.	.592
3	Ik raak vaak gefrustreerd van mijn werk.	.792
4	Door mijn werk heb ik nog maar weinig tijd voor andere dingen.	.769
5	Ik heb het gevoel dat ik nooit vrij ben van mijn werk.	.796
6	Ik besteed erg veel tijd aan mijn werk omdat ik vaak het overzicht kwijt ben.	.682
	KMO	.800
	Bartlett's sphericity significance	.000
	Eigenwaarde	3.230
	Variance explained	53.841
	Cronbach's α	.824

Appendix B: ANOVA outcomes

Table B1: ANOVA outcomes, ICC1, and ICC2 of team HIWP

	MSW	MSB	F	sig	ICC1	ICC2
Team HIWP	.279	.631	2.259	.000	.122	.558

k = 9.05.

Table B2: ANOVA outcomes, ICC1, and ICC2 of team workload sharing

	MSW	MSB	F	sig	ICC1	ICC2
Team workload sharing	.303	.569	1.877	.000	.088	.467

k = 9.05.

Appendix C: Sobel test

Table C1: Sobel test; HIWP and affective team commitment mediated by workload sharing

	Workload sharing
Unstandardized coefficients	
X → M	.283 (.085)
M → Y	.195 (.051)
Unstandardized indirect effect	2.511 (.022)**
p-value (one-tailed)	.006

*p < .05, ** p < .01; ***p < .001.

Table C2: Sobel test; HIWP and stress mediated by workload sharing

	Workload sharing
Unstandardized coefficients	
X → M	.283 (.085)
M → Y	-.106 (.050)
Unstandardized indirect effect	-1.788 (0.017)*
p-value (one-tailed)	.037

*p < .05, ** p < .01; ***p < .001.