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Article

# How Different Forms of Knowledge Transfer at Workplace Are Related to SELF-rated Work Performance?

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**Abstract:** Successful work performance is an important part of everyday functioning. Different factors could contribute to efficiency at the workplace. Two studies aim to establish how different forms of knowledge transfer at the workplace are related to self-rated work performance and whether better work performance is related to mindfulness as an aspect of cognitive functioning. The participants were 742 working Bulgarians in Study 1 and 259 workers in Study 2. Ten scales were used in Study 1, measuring different forms of knowledge transfer and self-rated work performance, and two scales were used in Study 2, measuring self-assessed work performance and mindfulness. The results revealed that higher self-assessment of work performance correlated positively but weakly with the sharing of tacit knowledge at the workplace, sharing knowledge with colleagues in dyads, work climate encouraging mastership, sharing knowledge in teams, knowledge transfer by means of cooperation between different generations, institutionalized transfer of knowledge, knowledge receiving, and estimated effectiveness of participation in supervision as a supervisee. Some forms of knowledge transfer (sharing of tacit knowledge and sharing knowledge with colleagues in dyads) seemed more closely related to self-assessed work performance than others. Self-assessment of work performance did not correlate statistically significantly with performance motivational climate at work. The different forms of knowledge transfer correlated with each other. Better work performance is related to better cognitive functioning, as the second study of 259 workers additionally revealed that higher self-assessment of work performance correlated with better self-awareness measured by the Mindful Attention Awareness Scale, i.e., more attention focused on own thoughts, emotions, and needs, i.e., on what is happening right now. Interconnectedness between the different forms of knowledge transfer indicates that stimulating one kind of knowledge transfer could also stimulate many other forms of knowledge transfer, but this may happen only when organizations support a mastery-motivated climate at work. Established connections between the different forms of knowledge transfer and self-rated work performance, as well as between self-assessed work performance and mindfulness, suggest that good cognitive functioning accompanied good functioning, and both may be facilitated by knowledge transfer at the workplace.

**Keywords:** knowledge transfer; self-awareness; work performance

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## 1. Introduction

Human beings can perform different activities because of their cognitive development and manifestations of volition based on some kind of motivation for behaving in an appropriate way in concrete situations. Contemporary work activity is sophisticated, so successful performance at work requires cognitive prerequisites related to the accumulation of knowledge and skills and a motivational prompt to perform well.

Knowledge transfer has cognitive benefits regarding problem-solving, creativity, and performance [1]. Engaging in knowledge transfer may fulfill employees' needs for autonomy, competence, and relatedness — feeling empowered, valued, respected, connected to others [1,2], and

receiving recognition, as knowledge is a valuable resource that can be passed on to co-workers of the same company [3]. Knowledge transfer is an organizational priority because it permits retaining firm-specific knowledge [3] as a source of competitive advantage [4].

Knowledge transfer may motivate employees to remain with their organization, fulfilling their needs [1] and assuring them rewards for becoming more efficient workers. Knowledge transfer in the workplace contributes to the accumulation of job-specific knowledge that presupposes better work performance. This paper aims to find out 1) how different forms of knowledge transfer at work are related to work performance, and 2) if better work performance is related to mindfulness as an aspect of cognitive functioning.

### *1.1. Definitions of Knowledge Transfer*

Knowledge transfer is a communicative process of flow of knowledge through which one unit (individual, group, team, department, or organization) interacts with another unit or with more other units seeking, transferring, transmitting, exchanging, sharing, and receiving knowledge, useful information, skills, experience, and expertise from one source to another such that the recipient can receive and utilize the knowledge that was provided and shared by the source after retrieving it from memory [1,4–8]. Knowledge transfer can occur face-to-face or online, collectively in dyads, teams, and organizations, as well as individually [8] from documents.

Knowledge transfer consists of several distinct but interrelated elements: seeking knowledge [8], knowledge sharing [2,8,9], knowledge receiving [2,9], knowledge retention [8], and its implementation in practice.

Seeking knowledge depends on learning motivation. Knowledge transfer is a part of organizational learning [8], related to the motivational climate at work to learn and achieve mastery. Knowledge transfer provides employees with the opportunity to learn by receiving knowledge and to establish their expertise by sharing their knowledge with others [2].

At an individual level, knowledge sharing depends on attitudes towards knowledge sharing (i.e., positive, negative, or ambivalent feelings regarding sharing knowledge [10], based on beliefs regarding the benefits of knowledge sharing [11]), the intention to share knowledge (i.e., the extent to which one believes that he or she will attempt to provide knowledge [6,10], subjective norms about the appropriateness and value of knowledge sharing, perceived social pressure by organizational members (peers, supervisors, senior management) to perform or not the knowledge-sharing behavior, perceived behavioral control to knowledge sharing (i.e., perception of the ease or difficulty related to performing the knowledge-sharing behavior), and the knowledge-sharing act itself (i.e., the degree to which an employee actually shares knowledge with other organizational members [10]).

An employee's knowledge sharing precedes another employee's knowledge receiving [7]. It is possible that one employee shares knowledge but the intended recipient does not receive it, because the potential knowledge receiver may not understand the sender's knowledge, may not recognize that the other person is sharing valuable, useful, and relevant knowledge for a work task [5,7], may not have enough time or learning motivation, and may have estimated the reputational risk of being recognized as a knowledge receiver as high [2].

Knowledge retention can be achieved through the definition, documentation, and integration of knowledge into the organization [8], as well as through cognitive consonance with previous acquired knowledge and the implementation of knowledge in practice.

### *1.2. Explicit and Tacit Knowledge Transfer*

There are different types of knowledge and expertise [8]. Knowledge can be domain-related [12], more or less abstract, and more or less explicitly represented, codified, and accessed [13].

The exchange of knowledge at the workplace includes the exchange of explicit and tacit elements of knowledge [14] or implicit knowledge [15].

Explicit knowledge represents general information [16], formal, systematic knowledge about intellectual properties (patents and licenses), work policies and procedures, specific information (on customers, markets, suppliers, or competitors), benchmark data, etc. [17] that is easily captured,

codified, formulated, written down, recorded into sentences, mathematical equations, and other symbols [14], accessible, fast, and easily transmitted to others in documents, general instructions, and through IT systems [17].

Tacit knowledge includes professional know-how and expertise (for example, specific knowledge about production facilities, technologies, and effective work styles [15]; individual creative advice on strategic problems [17]) that is complex and difficult to capture, put into words, explain, and transfer because it is subjectively accumulated through observation and judgment, imitation, personal experience, participation in interactions, intuition, and insight in such a way that its sources are not easily identified [8,14,16,17]. For successfully transferring tacit knowledge, face-to-face interaction works better than virtual interaction [8]. Teleworking reduces knowledge transfer between employees [18].

### *1.3. Intragenerational Dyadic Knowledge Transfer among Colleagues*

Knowledge transfer in organizations occurs among individuals as a dyadic interactive relational coworker-directed process when two employees are willing and able to share and seek knowledge, so they transmit and receive knowledge [2,7,9]. Dyadic knowledge transfer between two colleagues of the same generation constitutes the most basic form of knowledge transfer at the workplace [8]. Knowledge sharing between two colleagues means asking another colleague for his or her knowledge and support to gain work experience, as well as obtaining knowledge and support from a colleague [6,8].

Knowledge transfer among colleagues depends on the awareness of each other's knowledge and expertise [5], the perceived ability to share knowledge (the ability to explain the usefulness of one's knowledge to others), the perceived motivation to share knowledge (not being afraid of losing power when transferring one's knowledge to others), the perceived ability to receive knowledge, the perceived ability to acquire knowledge from others, and the perceived motivation to receive knowledge (actively seeking out knowledge from others) [19].

### *1.4. Team Knowledge Transfer*

Team knowledge transfer occurs among team members with different expertise [14], i.e., different individual skills, knowledge, and experience [13]. Working together and sharing information on a regular basis should allow employees to make better use of their combined knowledge [20]. A team may consist of people of the same generation or of people of different generations. Mixing people of various ages leads to diverse capacities, skills, perspectives, and attitudes, which increases the generation of new ideas and collective problem-solving capacity of work teams and encourages knowledge transfer [20]. In today's organizations, professionals from different occupations work together in interprofessional or multidisciplinary teams, complementing their work in an on-going process of delivering high-quality products, services, and care [21]. Teamwork enhances interactions, communications, and the exchange of knowledge among employees [20]. Employees positively perceive their participation and contribution to their team [6]. Team members share more knowledge [8].

Team knowledge transfer is a form of collective knowledge transfer and collective learning [22]. The interprofessional team meeting provides opportunities for informal workplace learning [21]. Collective knowledge transfer has a sequence of phases such as initiation, implementation, ramp-up, and integration [7]. The regularity of team meetings and the interactions that occur provide potential opportunities for knowledge to be shared between team members [21].

### *1.5. Intergenerational Knowledge Transfer*

Knowledge transfer between age-diverse employees is gaining importance because of demographic changes [2] that bring together several generations in the job market. As age-diverse workforces have different knowledge, skills, and expertise, intergenerational knowledge transfer is important to benefit both workers and organizations [1,3,23].

Intergenerational knowledge transfer is a form of intergenerational learning [8]. Knowledge transfer between younger and older employees may be a unidirectional or one-directional process, i.e., a source-recipient model, or a bidirectional process, i.e., a reciprocal process, a mutual exchange model [7–9,22] within intergenerational pairs of colleagues (dyads) or age-diverse teams/intergenerational work teams [3,9,18,24,25].

Dyadic intergenerational knowledge transfer is the exchange of information between two individuals (employees) who differ substantially in terms of age [8]. It often occurs as dyadic face-to-face intergenerational knowledge transfer between employees from the same organization [8].

Members of an age-diverse work team have different experiences, knowledge, skills, abilities, and attitudes, which can be especially relevant for innovative solutions or dealing with complex tasks [26]. Intergenerational teamwork activates new knowledge combinations and a more efficient exploitation of existing knowledge bases [8].

In the process of unidirectional knowledge transfer, knowledge is shared only from the older knowledge sender to the younger knowledge recipient, and younger employees seek knowledge from older employees [7–9,18]. The older, long-standing employees have acquired more knowledge, company-specific know-how, skills, and work experience that they can share with their younger, less experienced colleagues [7,8,18]. Transferring knowledge from older to younger employees can reduce the risk of knowledge loss when older employees retire [6].

Intergenerational knowledge transfer could be initiated by a younger employee seeking knowledge (i.e., an actor-driven knowledge receiving) or by an older employee sharing his or her knowledge (i.e., a partner-driven knowledge receiving) [1,7].

Organizations that only facilitate one-directional knowledge transfer between older and younger workers may not use the full potential of their age-diverse workforces [9].

In the process of bidirectional knowledge transfer, knowledge flows in two directions, such that younger employees share knowledge with older employees and older employees share knowledge with younger employees [7–9].

Both older and younger employees possess unique knowledge [7] and different knowledge [8]. Different types of knowledge are exchanged at different times [8] during intergenerational knowledge transfer. Younger generations could share more recent technological knowledge and scientific insights with older generations [7,8,18,20,27]. Older employees share social knowledge about management, communication, business relationships, social networks, and workplace conflicts; knowledge about problem solving under company-specific circumstances; and firm-specific knowledge [7,8,18,20].

### *1.6. Supervision as a Form of Knowledge Transfer*

Supervision is an active professional interaction with peers or heads who support, train, observe, and control an individual or a team of professionals to optimize work performance, execute better work tasks, solve work problems, assist in better understanding the customer, build sustainable interaction among professionals, overcome negative emotional experiences at work, and assure individual well-being and personal growth [28]. Supervision is applied in social work, healthcare, psychological consultation, education, public administration, the economic sphere, production, etc. [28].

Forms of supervision are mentoring, peer assessment, differentiated supervision models like portfolio (examining individual practice by evidence of products demonstrating professional development), peer coaching (two or three staff members observe and learn from one another in the implementation of their work activity), action research (selecting an area to explore in depth or the pursuit of new ideas in order to achieve professional growth), collaborative action research model, etc. [28,29].

Mentoring is a dyadic informal long-term form of knowledge transfer that often represents a kind of intergenerational knowledge transfer from more experienced workers (i.e., mentors) who provide support, guidance, advice, and commitment to less experienced workers (i.e., protégés), which can result in benefits for both the protégés (such as learning, personal and career development,

performing better, and organizational commitment) and mentors (who can experience gratification and recognition from the mentoring relationship and feel rejuvenating) [1,3,18,24,25,27]. Reverse mentoring is a form of knowledge transfer from novice employees to more senior ones [18].

Coaching is often a dyadic form of intergenerational knowledge transfer that is formal and centered on the development of individual skills and knowledge so that job performance improves, which addresses both individual and organizational needs [3,18].

Usually, knowledge sharing through supervision is a kind of institutionalized knowledge transfer, but supervision could also be organized by means of the initiative of the supervisee who needs it.

### *1.7. Institutionalized Knowledge Transfer (Knowledge Management)*

Knowledge management includes organizational procedures, practices, and initiatives to find, organize, preserve, make available, and share the company's expertise between employees and foster a culture of continuous learning by means of intragenerational and intergenerational knowledge transfer within an organization among individuals or groups so that organizational activities build on what is already known [10,17,24,25,30]. Knowledge management could be realized as institutionalized knowledge transfer (knowledge transfer by means of institutionalized structures) and intergenerational collaboration [24]. A firm can encourage knowledge transfer and enable interactions that lead to new knowledge combinations [20]. Organizations usually combine several methods, approaches, and technologies to assure institutionalized knowledge transfer [17] through knowledge management.

Institutionalized knowledge transfer may be implemented deliberately through:

- “include” organizational strategies and practices (for example, training leaders to interact respectfully with subordinates of all age groups; training leaders in empowering, inclusive, and transformational leadership; improved recruitment, for example, hiring a new worker six months prior to the retirement of an older worker; cultural diversity programs; social events between organizational members such as joint breakfasts, luncheons, drinks, and coffee breaks as well as sports events; a people-to-documents approach when knowledge from individuals is codified and stored into documents disseminated for access and reuse by anyone in the organization; an information technology approach, i.e., investing in information technology to develop and establish an electronic document system, a knowledge data bank, or database that codifies, stores, disseminates, and allows reuse of knowledge, as well as using the company's intranet system to share workspace, documentation, projects, and templates) that are mostly focused on workers being welcomed, accepted, valued, and fairly treated irrespectively of age [3,5,6,8,17,22,25,26];
- “individualize” organizational strategies and practices (for example, work redesign to avoid bureaucracy; work task distribution considering workers' knowledge and skills; offering to older employees the same role with reduced hours; a phased retirement program with one or two days of work a week upon retirement; job rotation, i.e., the transfer of workers between workstations and tasks requiring different skills and responsibilities; promotion options for workers with important knowledge into higher ranking positions; providing young people with work experience through secondments from schools; training for workers to acquire or update knowledge and skills related to the job) that adjust flexibly work to support the changing individual needs and preferences of workers [3,5,6,8,15,18,26,31,32];
- “integrate” organizational strategies and practices (for example positive intergenerational exposure; establishing age diverse team structures; training in conflict management; mentoring; reverse mentoring; coaching; supervision; “buddy” programs when a long-term employee is assigned to orient a new hired employee to the organization; job shadowing as a form of training where an early career worker closely observes how a more tenured worker performs his/her job in the real work environment; team building focused on the interpersonal relationships and the social interactions of the team; team training of setting of goals, interpersonal relationship management, role clarification and problem-solving; action learning, i.e., bringing together staff from different departments to work in a solution-focused way to solve organizational problems;

training that clarifies the ways of identification of own valuable knowledge, the ways of communicating this knowledge effectively to others, and the positive effects of knowledge transfer for the individual and the organization; regular meetings and feedback sessions; designing projects via task interdependence whereby each age diverse colleague completes his/her individual task in line with an overall common goal, then all synthesize the different task outcomes; a person-to-person approach developing networks for connecting people face-to-face or through interactive media creating knowledge/practice communities; an information technology approach investing in information technology with a goal of facilitating conversations and person-to-person exchange of knowledge) focused on increasing positive intergenerational relationships, intergenerational collaboration and communication to improve knowledge transfer, optimal team and organizational performance, enhance innovation, foster job satisfaction [3,5,6,17–20,24–26,30,32,33].

Some knowledge transfer initiatives are also taken on an individual basis [3]. If employees perceive the necessity of seeking knowledge on a particular issue to be able to fulfill their job duties, they are more likely to take the initiative and seek this knowledge without receiving explicit support from the organization [8]. Knowledge is shared in organizations no matter if the process is deliberately managed or not [10], but knowledge management by the organization aims to facilitate knowledge transfer. When explicitly encouraged by their institution to share their knowledge because organizational culture is perceived as learning, supportive, and fair, employees are more likely to engage in knowledge transfer as they realize the importance of knowledge transfer to themselves and the organization [8]. Learning culture means that learning is part of everyday practice; the majority of organizational members value lifelong learning and strive for high performance through learning [8,21]. A work environment that is characterized by a positive appreciation of learning positively affects knowledge transfer [8].

### *1.8. Motivational Climate at Work*

Employees' intrinsic motivation to realize their potential at work, supportive organizational practices regarding employees' growth of knowledge, skills, and abilities, a learning-oriented cultural climate, and a psychological climate focused on positive relationships in the organization increase knowledge transfer success [2,8,27,34]. Motivation is not only a predictor of knowledge transfer but can also be an outcome [1].

The perceived motivational climate at work is characterized by employees' perceptions of the organizational criteria of success and failure regarding performance and its context, which shape a mastery motivational climate or a performance motivational climate [35].

Mastery (or task-involving) motivational climate refers to work structures where the individual perceives that self-development, learning and mastery of skills, building competence, individual improvement, demonstrated effort, employee equality, sharing, and cooperation are valued, encouraged, and rewarded [35]. The individual perceives achievement when his or her present level of performance exceeds prior achievements, i.e., success is not based on social comparison or any external organizational normative criteria [35].

Performance (or ego-involving) motivational climate refers to the employee's perceptions that demonstrate superiority, favorable social comparisons regarding performance outcomes, competition for rewards, recognition, or status are valued [35].

A mastery motivational climate is more highly positively related to work performance than a performance climate [35]. A learning orientation in work teams has positive consequences for team effectiveness [35].

### *1.9. Work Performance*

Work performance is important for organizational effectiveness [35]. Work performance includes the employee's in-role performance [36,37], i.e., acts to fulfill the job requirements from job descriptions that are recognized by the formal reward system of the organization [37], performed required functions or tasks [38], completed task assignments or activities that directly support the

accomplishments of tasks [35], unfinished tasks [39], work effort and work quality [35], productivity [18], performance of organizational citizenship behaviors that have a specific individual as the target, performance of organizational citizenship behaviors that focus on primarily benefiting the organization [37], personal efficacy and resilience [19], and employees' work-life balance [39].

Some indicators of work performance could also be workability, person- organization fit [25] or employability [19], and staff capacity [38]. Employability concerns the extent to which people possess some individual attributes (professional knowledge and skills, capacity for learning, mastery of career management and job search, personal networks in the organization, etc.) to find and stay in work of the kind they want [19]. Staff capacity is the ability to perform appropriate tasks effectively, efficiently, and sustainably based on knowledge, skills, attitudes, motives, self-perceptions, values, occupational preferences, etc. [38]. Knowledge transfer in organizations aims to improve individual and team work performance as well as organizational effectiveness.

### 1.10. Hypotheses

This paper aims to find out how different forms of knowledge transfer at work are related to self-assessed work performance, as well as if better work performance is related to mindfulness as an aspect of cognitive functioning. Several hypotheses were formulated.

1. It was hypothesized that all forms of knowledge transfer and mastery motivational climate would be related to self-rated work performance, but some forms of knowledge transfer would be more closely related to self-assessed work performance than others.

Individuals learn, enhance their knowledge, constantly seek interactions, and combine their knowledge to perform [20]. More knowledge transfer should improve work performance, and better work performance should increase knowledge transfer because of more expertise that could be shared. Sharing knowledge can help maintain the ability to function successfully at work [6]. Institutionalized knowledge transfer and intergenerational knowledge transfer correlate with such indicators of work performance as workability and person-organization fit [25]. Reciprocal transfer of knowledge in organizations, where everyone has something to give and gain from each other, improves productivity and employees' wellbeing [6]. Productivity could be enhanced between employees through teams where younger and older employees work together and spillover knowledge and experience [18]. That is why it is expected that different forms of knowledge transfer will be related to self-rated work performance.

The outcomes of the motivational climate are related to work performance [35]. Performance tends to improve when individuals perceive a high-mastery motivational climate [35]. Mastery motivational climate at work should be related to workers' performance, as learning norms and learning orientation stimulate older employees to share their knowledge and younger workers to receive knowledge [8]. A research question is whether mastery motivational climate correlates more strongly with work performance than different forms of knowledge transfer.

2. It was hypothesized that different forms of knowledge transfer would correlate with each other as well as with the motivational climate at work.

Knowledge transfer between employees can benefit their work motivation [34]. Institutionalized knowledge transfer is targeted at both individuals and teams; intragenerational knowledge transfer and intergenerational knowledge transfer are performed both in dyads and in teams; explicit and tacit knowledge is transferred among two or more colleagues from the same or different ages, which implies relationships between all forms of knowledge transfer.

3. It was hypothesized that work experience would correlate with self-rated work performance and different forms of knowledge transfer.

Knowledge and familiarity with organizational practices increase with time spent in the organization [40], so longer work experience should be accompanied by better work performance. Experience, skills, and knowledge of workers are also acquired in the process of knowledge transfer, so it is important to establish if the length of work experience correlates with some preferences for different forms of knowledge transfer.

4. It was hypothesized that higher self-rated work performance would correlate with better cognitive functioning, expressed as higher mindfulness.

Mindfulness means awareness and more focused attention to the events and experiences at the present moment [41,42], i.e., more attention focused on own thoughts, emotions, and needs, on what is happening right now. Such mindful, present-focused attention is a prerequisite for better execution of complex work tasks. On the other hand, work activity has its utilities for social and psychological human functioning [43].

## 2. Materials and Methods

### 2.1. Study One

#### 2.1.1. Procedure

Data were collected online from June 2024 to August 2024 by means of distributing a link to several questionnaires to social networks and different organizational emails after a phone call asking for permission to distribute the questionnaires. Participation in the study was voluntary, following the principles of the Declaration of Helsinki [44]. The criteria for inclusion in the study was being a working citizen of Bulgaria, at least 18 years old. A total of 929 workers were approached, and only data derived from those of them who participated in supervision as a supervisee at some stage of their career and who answered all the questionnaires without missing answers were reported in this study.

#### 2.1.2. Sample

The participants who answered all the questionnaires without missing answers were 742 working Bulgarians, mainly female workers ( $N = 670$ , 90.3%), and the number of male workers was smaller ( $N = 70$ , 9.4%). Two participants (0.3%) did not indicate their gender.

The participants' ages varied from 20 to 71 years old, with mean age of 44 years old, and a standard deviation of 11 years.

Most of them were social workers ( $N = 655$ , 88.3%), and the others worked in the areas of education ( $N = 23$ , 3.1%), public administration ( $N = 19$ , 2.6%), healthcare ( $N = 12$ , 1.6%), or some other occupations, mainly in the areas of trade and finance ( $N = 33$ , 4.4%). Their work experience lasted from 1 to 46 years, with an average work experience of 16 years and a standard deviation of 11 years.

#### 2.1.3. Instruments

All scales used in this study were translated into Bulgarian by a group of scientists consisting of psychologists, social workers, and philologists. Then the scales were back translated into English and compared with the original questionnaires. A final decision was taken by the authors about the use of the scales as close to the original as possible or with a modified way of answering as indicated below for each research tool.

We measured the reported actual behavior related to knowledge transfer, not the willingness to engage in knowledge transfer.

To avoid social desirability and inconsistency in answering, all participants were asked to choose a specific answer to one question, and only the answers of those participants who completed this requirement were analyzed.

##### 2.1.3.1. Team Knowledge Sharing

The Bulgarian version of the scale Team knowledge sharing by Chuang et al. [14] was used to measure the extent to which team members shared their special knowledge and experience with others in their team. It consists of seven items (one of them is reverse-coded) answered on a 7-point Likert-type scale [14]. The original scale was answered only by team leaders [14], but in the Bulgarian application of this scale, both the team leaders and the members of teams answered concerning

knowledge sharing in teams. Four items of this scale were formulated by Faraj and Sproull [13] that were originally answered on a 5-point Likert scale and formed the scale Bring expertise to bear, whose Cronbach's alpha was .82 [13]. Two of these items were reverse coded (If someone in our team has some special knowledge about how to perform the team task, he or she is not likely to tell the other member about it; There is virtually no exchange of information, knowledge, or sharing of skills among members), so Chuang et al. [14] reformulated one of them positively (If a member in our team has some special knowledge about how to perform the team task, he or she will tell other members about it) and transformed their answers on a 7-point Likert-type scale. The other three items were developed by Chuang et al. [14] regarding providing work-related suggestions, experience, and knowledge to solve problems among members of the team and the presence of constructive discussion during team meetings. Cronbach's alpha of the original 7-item scale Team knowledge sharing was .90 [14]. In our study, Cronbach's alpha was .877 for the 7-item scale Team knowledge sharing, and the mean inter-item correlation was 0.546.

#### 2.1.3.2. Tacit Knowledge Sharing

The original scale Tacit knowledge sharing consists of four items (about sharing one's job experience, expertise, ideas about jobs, and tips on jobs with co-workers) answered on a five-point Likert scale, whose Cronbach's alpha is .88 [16]. Because the items in the scale do not specify any concrete knowledge, the author of the scale [16] labeled it "Tacit knowledge sharing." There are not any reverse-coded items [16]. The Bulgarian version of this scale consists of these four items with modified answers on a 7-point Likert scale. We have used a 7-point scale for answering the items in order to have the same way of answering all items on all scales. In our sample, Cronbach's alpha was .844, and the mean inter-item correlation was 0.580.

#### 2.1.3.3. Knowledge Management through Institutionalized Knowledge Transfer and Knowledge Management through Intergenerational Collaboration

The Later Life Workplace Index (LLWI) is a multifaceted, multidimensional measure of organizational practices for the aging workforce [25,30]. The LLWI comprises nine domains of organizational practices, namely organizational climate, leadership style, certain work design characteristics, health management, individual development opportunities, knowledge management, transition to retirement, continued employment opportunities after retirement, and health and retirement coverage [25,30]. The LLWI consists of 80 items in total [25].

Some items of the German version of LLWI in the organizational climate and leadership domains are answered in a 7-point response format, and the other seven domains have a 5-point response format to limit respondents' cognitive load [25]. In the English version of LLWI, all responses are given on a 7-point rating scale [30]. In our study, the answers were also given on a 7-point rating scale. There are not any reverse-coded items in the scales Knowledge management through institutionalized knowledge transfer and Knowledge management through intergenerational collaboration [25,30].

The item pool of the Knowledge management domain contains institutionalized knowledge transfer (four items, with an internal consistency of .80 for the German version [25], and .82 for the English version [30]) and intergenerational collaboration (three items, with an internal consistency of .88 for the German version [25], and .93 for the English version [30]). Cronbach's alpha for Knowledge management is .88 [30]. In our sample, Cronbach's alpha for the sub-scale Institutionalized knowledge transfer was .808, with a mean item correlation of 0.514. In our sample, Cronbach's alpha for the sub-scale Intergenerational collaboration was .900, with a mean item correlation of 0.750. In our sample, Cronbach's alpha for the scale Knowledge management was .882, with a mean item correlation of 0.533.

#### 2.1.3.4. Providing Knowledge in Dyads

The scale Colleagues' Knowledge Sharing [45] or Providing Knowledge [46] consists of three items regarding showing the colleague special procedures at work, supporting a colleague's efforts to gain work experience, and permitting the colleague to learn by watching one's job. These items measure different ways of explicit and tacit knowledge transfer (e.g., to ask or observe a colleague, or to give advice) [46] in a dyadic form of knowledge transfer. Dyadic knowledge sharing is measured by asking about the specific dyad member (my colleague) instead of references to other organizational members (my colleagues) [2]. Originally, the items were answered on a 5-point Likert scale [45,46], but in our study, all questionnaires were answered on a 7-point Likert scale. Its Cronbach's alpha in different studies was .76 [45], .87 [19], or .860 [46]. In our study, Cronbach's alpha was .780 and the mean inter-item correlation was 0.560.

#### 2.1.3.5. Knowledge Receiving or Obtaining Knowledge by Colleagues

The scale Knowledge Receiving [45] or Obtaining Knowledge by Colleagues [46] consists of five items (four items by Wilkesmann et al. [46], to which Fasbender et al. [45] add an additional item regarding making an effort to receive knowledge from the colleagues) related to observing the colleagues while they are doing their job, asking advice from the colleagues regarding specific procedures or anything else related to work, and receiving support from the colleagues regarding gaining work experience. Originally, the items were answered on a 5-point Likert scale [45,46], but Burmeister et al. [1] used a 7-point response scale, as we also did. In our study, all questionnaires were answered on a 7-point Likert scale. Its Cronbach's alpha in different studies was .86 for younger coworkers, .87 for older coworkers [1], .83 [5], .84 [45], .91 [19], or .775 [46]. In our study, Cronbach's alpha was .883 and the mean inter-item correlation was 0.603.

#### 2.1.3.6. Estimated Effectiveness of Participation in Supervision as a Supervisee

All subjects took part in supervision as a supervisee at some stages of their career (see Table 1), and they estimated the effectiveness of participation in supervision as a supervisee on a 6-point scale, where 6 means very effective. The median of their estimated effectiveness of participation in supervision was 5, and the interquartile range was 1.

**Table 1.** Frequency distribution of workers' participation in supervision as a supervisee.

<b>How often do you participate in supervision as a supervisee?</b>	<b>Frequency</b>	<b>Percent</b>
Not participated in more than three years	28	3.8%
Not participated in more than two years	21	2.8%
Once every two years	1	0.1%
Not participated in more than one year	70	9.4%
Once per year	20	2.7%
Two to three times per year	481	64.8%
Four to five times per year	27	3.6%
Six to eight times per year	9	1.2%
Once per month	27	3.6%
Twice per month	54	7.3%
Once per week	4	0.5%

#### 2.1.3.7. Mastery Motivational Climate at Work and Performance Motivational Climate at Work

We applied the Bulgarian version of the Motivational Climate at Work Questionnaire (MCWQ) with its sub-scales, Mastery Climate and Performance Climate [35]. The sub-scale Mastery Climate

consists of six items originally answered on a 5-point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree) [35], but in our study they were answered on a 7-point Likert scale to keep consistent answers to all the items on all scales that were used. The items refer to encouragement of cooperation and mutual exchange of thoughts, ideas, and knowledge; innovative solutions in the work group; individual learning and development; task clarity; and feeling one's importance in the work process [35]. Cronbach's alpha was .85 and .77 for the mastery climate at work in two studies conducted by the authors of the questionnaire [35]. In our study, Cronbach's alpha for the sub-scale Mastery motivational climate at work was .899, and the mean inter-item correlation was .598.

The sub-scale Performance Climate consists of eight items originally answered on a 5-point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree) [35], but in our study they were answered on a 7-point Likert scale to keep consistent answers to all the items on all scales that were used. The items refer to the existence of competition and rivalry among team members, social comparisons with the success of coworkers, and rewarding optimal performance [35]. Cronbach's alpha was .84 and .81 for the performance climate in two studies conducted by the authors of the questionnaire [35]. In our study, Cronbach's alpha for the sub-scale Performance motivational climate at work was .826 and the mean inter-item correlation was .372.

#### 2.1.3.8. In-Role Performance

Self-rated work performance was measured by means of a four-item scale by Eisenberger et al. [47]. The workers self-assessed their work performance by means of the scale In-role Performance. This scale includes four items (regarding meeting the formal performance requirements of the job, fulfilling responsibilities specified in the job description, performing expected tasks, and adequately completing the assigned duties) that are answered on a 7-point Likert-type scale [47]. There are not any reverse-coded items [47]. Its Cronbach's alpha was .93 [47]. This scale In-role Performance was an extracted part of the scale Employee performance of in-role behavior (IRB) by L. J. Williams and S. E. Anderson [37]. The scale Employee performance of in-role behavior includes seven items (regarding meeting the formal performance requirements of the job, fulfilling responsibilities specified in the job description, performing expected tasks, adequately completing the assigned duties, engaging in activities that will directly affect performance evaluation, not neglecting obligatory aspects of the job, and not failing to perform essential duties) [37], whose answers were given on a 5-point response scale in Iran [36]. Cronbach's alpha of the scale Employee performance of in-role behavior was .91 [36,37]. In Bulgaria, Cronbach's alpha of the scale In-role Performance (self-rated work performance) was .843 and the mean inter-item correlation was 0.593.

#### 2.2. Study Two

This study was conducted from November 2023 to March 2024, both face-to-face and online. The inclusion criteria for participation in the study was being an adult Bulgarian (18 years old or more). The study was conducted in accordance with the Declaration of Helsinki [44].

The participants who answered all the questionnaires without missing answers were 259 workers, most of whom were female workers ( $N = 155$ , 59.8%), and less of them were male workers ( $N = 104$ , 40.2%). Their ages varied from 23 to 48 years old, with a mean age of 24 years old and a standard deviation of 3 years. They worked in the areas of sport ( $N = 103$ , 39.8%), education ( $N = 103$ , 39.8%), healthcare ( $N = 41$ , 15.8%), mass communications ( $N = 9$ , 3.4%), and tourism ( $N = 3$ , 1.2%). Their work experience lasted from 1 to 20 years, and their average work experience was 7 years, with a standard deviation of 5 years.

The Bulgarian adaptation [42] of the scale MAAS (Mindful Attention Awareness Scale) [41] was used. MAAS consists of 15 items answered on a 6-point scale [41,42]. Bulgarian adaptation of MAAS had a Cronbach's alpha coefficient of .80 [42], in our study Cronbach's alpha was .801. A higher score means higher awareness of the present moment, that attention is more focused on own thoughts, emotions, and needs, on what is happening right now [41,42].

Self-rated work performance was studied by means of the sub-scale Self-assessment of poor work performance, which included six items of the Inferiority Complex shortened scale COMPIN

[48], and Cronbach's alpha was .785 for the sub-scale Self-assessment of poor work performance. The items refer to a lack of knowledge about how to use one's own competences at the right time, considering oneself as not being as good as others in work, negative self-talk that the work task will not be finished, considering oneself as not being able to meet work requirements and not ready for work tasks, and considering oneself as being inhibited by failure.

### 2.3. Data Analysis

The data were processed by means of SPSS 23 by applying descriptive statistics, the Shapiro-Wilk test for establishing the normality of the distribution of test scores, and Spearman's rho correlation coefficient for establishing the nexus between the variables that were not normally distributed.

## 3. Results

The scores on all variables were not normally distributed (the significance level of the Shapiro-Wilk test was  $< .001$ ) in both studies.

### 3.1. Results Regarding the First Hypothesis

The results revealed that higher self-assessment of work performance correlated positively but weak with sharing of tacit knowledge at workplace (Spearman's rho = 0.294,  $p < .001$ ), sharing knowledge with colleagues in dyads (Spearman's rho = 0.288,  $p < .001$ ), work climate encouraging mastership (Spearman's rho = 0.269,  $p < .001$ ), sharing knowledge in team (Spearman's rho = 0.234,  $p < .001$ ), knowledge transfer by means of cooperation between different generations (Spearman's rho = 0.223,  $p < .001$ ), institutionalized transfer of knowledge (Spearman's rho = 0.168,  $p < .001$ ), knowledge receiving (Spearman's rho = 0.155,  $p < .001$ ), and estimated effectiveness of participation in supervision as a supervisee (Spearman's rho = 0.098,  $p = .008$ ). Self-assessment of work performance did not correlate statistically significantly with performance motivational climate at work (Spearman's rho = -0.041,  $p = .263$ ).

### 3.2. Results Regarding the Second Hypothesis

Estimation of supervision as more effective correlated positively with mastery motivational climate (Spearman's rho = 0.358,  $p < .001$ ), institutionalized knowledge transfer (Spearman's rho = 0.348,  $p < .001$ ), team knowledge sharing (Spearman's rho = 0.276,  $p < .001$ ), intergenerational knowledge transfer (Spearman's rho = 0.263,  $p < .001$ ), knowledge receiving (Spearman's rho = 0.236,  $p < .001$ ), providing knowledge in dyads (Spearman's rho = 0.178,  $p < .001$ ), and tacit knowledge sharing (Spearman's rho = 0.152,  $p < .001$ ).

Institutionalized knowledge transfer correlated positively with intergenerational knowledge transfer (Spearman's rho = 0.591,  $p < .001$ ), team knowledge sharing (Spearman's rho = 0.424,  $p < .001$ ), mastery motivational climate (Spearman's rho = 0.417,  $p < .001$ ), tacit knowledge sharing (Spearman's rho = 0.352,  $p < .001$ ), estimation of supervision as more effective (Spearman's rho = 0.348,  $p < .001$ ), knowledge receiving (Spearman's rho = 0.347,  $p < .001$ ), and providing knowledge in dyads (Spearman's rho = 0.293,  $p < .001$ ).

Intergenerational knowledge transfer correlated positively with institutionalized knowledge transfer (Spearman's rho = 0.591,  $p < .001$ ), team knowledge sharing (Spearman's rho = 0.563,  $p < .001$ ), tacit knowledge sharing (Spearman's rho = 0.551,  $p < .001$ ), mastery motivational climate (Spearman's rho = 0.486,  $p < .001$ ), providing knowledge in dyads (Spearman's rho = 0.438,  $p < .001$ ), knowledge receiving (Spearman's rho = 0.413,  $p < .001$ ), and estimation of supervision as more effective (Spearman's rho = 0.263,  $p < .001$ ).

Tacit knowledge sharing correlated positively with providing knowledge in dyads (Spearman's rho = 0.582,  $p < .001$ ), intergenerational knowledge transfer (Spearman's rho = 0.551,  $p < .001$ ), team knowledge sharing (Spearman's rho = 0.545,  $p < .001$ ), knowledge receiving (Spearman's rho = 0.469,  $p < .001$ ), mastery motivational climate (Spearman's rho = 0.426,  $p < .001$ ), institutionalized knowledge

transfer (Spearman's  $\rho = 0.352, p < .001$ ), and estimation of supervision as more effective (Spearman's  $\rho = 0.152, p < .001$ ).

Providing knowledge in dyads correlated positively with tacit knowledge sharing (Spearman's  $\rho = 0.582, p < .001$ ), knowledge receiving (Spearman's  $\rho = 0.518, p < .001$ ), team knowledge sharing (Spearman's  $\rho = 0.459, p < .001$ ), intergenerational knowledge transfer (Spearman's  $\rho = 0.438, p < .001$ ), mastery motivational climate (Spearman's  $\rho = 0.407, p < .001$ ), institutionalized knowledge transfer (Spearman's  $\rho = 0.293, p < .001$ ), estimation of supervision as more effective (Spearman's  $\rho = 0.178, p < .001$ ), and performance motivational climate (Spearman's  $\rho = 0.108, p = .003$ ).

Knowledge receiving correlated positively with team knowledge sharing (Spearman's  $\rho = 0.545, p < .001$ ), providing knowledge in dyads (Spearman's  $\rho = 0.518, p < .001$ ), tacit knowledge sharing (Spearman's  $\rho = 0.469, p < .001$ ), intergenerational knowledge transfer (Spearman's  $\rho = 0.413, p < .001$ ), mastery motivational climate (Spearman's  $\rho = 0.379, p < .001$ ), institutionalized knowledge transfer (Spearman's  $\rho = 0.347, p < .001$ ), and estimation of supervision as more effective (Spearman's  $\rho = 0.236, p < .001$ ).

Team knowledge sharing correlated positively with mastery motivational climate (Spearman's  $\rho = 0.599, p < .001$ ), intergenerational knowledge transfer (Spearman's  $\rho = 0.563, p < .001$ ), tacit knowledge sharing (Spearman's  $\rho = 0.545, p < .001$ ), knowledge receiving (Spearman's  $\rho = 0.545, p < .001$ ), providing knowledge in dyads (Spearman's  $\rho = 0.459, p < .001$ ), institutionalized knowledge transfer (Spearman's  $\rho = 0.424, p < .001$ ), and estimation of supervision as more effective (Spearman's  $\rho = 0.276, p < .001$ ).

Team knowledge sharing correlated negatively with performance motivational climate (Spearman's  $\rho = -0.122, p = .001$ ).

Performance motivational climate correlated positively only with providing knowledge in dyads (Spearman's  $\rho = 0.108, p = .003$ ).

Performance motivational climate correlated negatively with team knowledge sharing (Spearman's  $\rho = -0.122, p = .001$ ).

Mastery motivational climate correlated positively with team knowledge sharing (Spearman's  $\rho = 0.599, p < .001$ ), intergenerational knowledge transfer (Spearman's  $\rho = 0.486, p < .001$ ), tacit knowledge sharing (Spearman's  $\rho = 0.426, p < .001$ ), institutionalized knowledge transfer (Spearman's  $\rho = 0.417, p < .001$ ), providing knowledge in dyads (Spearman's  $\rho = 0.407, p < .001$ ), knowledge receiving (Spearman's  $\rho = 0.379, p < .001$ ), and estimation of supervision as more effective (Spearman's  $\rho = 0.358, p < .001$ ).

### 3.3. Results Regarding the Third Hypothesis

In Study 1, work experience correlated positively with self-rated work performance (Spearman's  $\rho = 0.075, p = .040$ ). Work experience correlated positively with performance motivational climate at the workplace (Spearman's  $\rho = 0.093, p = .011$ ).

The length of work experience correlated negatively with estimated effectiveness of participation in supervision as a supervisee (Spearman's  $\rho = -0.073, p = .046$ ), and knowledge receiving (Spearman's  $\rho = -0.108, p = .003$ ). However, more frequent participation in supervision was related to the estimation of supervision as more effective (Spearman's  $\rho = 0.265, p < .001$ ).

In Study 2, the length of work experience correlated also with improved work performance (Spearman's  $\rho = -0.144, p = .020$ ), i.e., with less negatively self-assessed work performance.

### 3.4. Results Regarding the Fourth Hypothesis

Better work performance is related to better cognitive functioning, as the second study of 259 workers additionally revealed that higher self-assessment of work performance correlated with better self-awareness (Spearman's  $\rho = -0.245, p < .001$ ), where correspondingly for both scales, higher scores mean worse self-rated work performance and better self-awareness, i.e., more attention focused on own thoughts, emotions, and needs, on what is happening right now.

## 4. Discussion

The results supported the first hypothesis that all forms of knowledge transfer and mastery motivational climate would be related to self-rated work performance. Some forms of knowledge transfer seemed more closely related to self-assessed work performance than others, as correlation coefficients indicated, but all correlations were weak, so any form of knowledge transfer did not stand out significantly above the others.

Knowledge transfer aims for good performance [20] and maintains work ability [6]. On the one hand, more knowledge transfer is linked to improved work performance. On the other hand, better work performance is related to increased knowledge transfer because more expertise could be shared.

The results revealed that self-assessed work performance was most strongly correlated with the sharing of tacit knowledge at the workplace, which points out the importance of tacit knowledge for sharing organizational experience to assure efficiency at the workplace. Tacit knowledge is a source of competitive advantage for organizations [8]. Tacit knowledge transfer depends on perceived justice, trust in co-workers, cooperativeness, and organizational commitment [16].

The second strongest correlation was between self-assessed work performance and sharing knowledge with colleagues in dyads. Interpersonal communication in dyads seems to be the most frequent form of communication in the workplace. That is why knowledge transfer with colleagues in dyads may be so closely related to perceived work performance. Reciprocal transfer of knowledge in organizations, where everyone has something to give and gain from each other, improves productivity and employees' wellbeing [6]. Besides, age-inclusive HR practices positively influence dyadic knowledge sharing and dyadic knowledge receiving [2]. Valuing diversity facilitates knowledge transfer in age-diverse coworker dyads [23].

The third strongest correlation was between self-assessed work performance and work climate encouraging mastery. Some other research findings also establish that performance tends to improve when individuals perceive a high-mastery motivational climate, and the mastery motivational climate is more positively related to work performance than a performance climate [35]. In some occupational fields like sport and education, a mastery motivational climate promotes increased effort, trying hard, and persisting when faced with difficulty [35]. A performance-motivated climate promotes low effort or persistence, seeking easy tasks, or giving up when faced with difficulty in the areas of sport and education [35]. In our study, where the number of workers in the areas of education or sport was small, the performance motivational climate did not correlate with self-assessed work performance.

The fourth strongest correlation was between self-assessed work performance and sharing knowledge in a team. Productivity could be enhanced between employees through teams where employees work together and share their knowledge and experience [18]. Team learning means self-confidence and perceptions of one's own capacity within the team meetings to contribute to others' learning by means of one's professional knowledge; attitudes and perceptions of behaviors associated with engagement with implementing learning; perceptions of learning potential during the team meetings; and perceptions of inclusiveness and interactions within the team meetings [21]. Conflicts in teams decrease team performance [8].

The fifth strongest correlation was between self-assessed work performance and intergenerational knowledge transfer. Intergenerational knowledge transfer correlates with such indicators of work performance as workability and person organization fit [25]. The combination of knowledge possessed by employees of different ages leads to creativity and the development of innovations [20], as people with different backgrounds and experiences approach problems differently [49]. Age diversity might be related to both positive (e.g., knowledge sharing) and negative (e.g., age discrimination) age-related mechanisms that influence employee outcomes [27]. Individuals who are confronted with negative stereotypes often show poorer performance, and intergenerational knowledge transfer is harmed by existing negative age stereotypes [8]. In intergenerational relationships, direct competition is smaller, as employees are generally more likely to be at different stages of their careers [8]. Older employees may be less afraid of losing power or status by sharing experiences with younger employees than by sharing them with colleagues of their same age [8]. The risk of exposing oneself as inexperienced is less pronounced when younger

employees seek knowledge from older ones than it is in intragenerational knowledge transfer [8]. Interactions between young and older employees who hold different values are more likely to be conflicting, which impedes intergenerational knowledge transfer [8], and this may explain the stronger link between work performance and intragenerational knowledge transfer than between work performance and intergenerational knowledge transfer.

The sixth strongest correlation was between self-assessed work performance and institutionalized transfer of knowledge. Institutionalized knowledge transfer correlates with workability and person-organization fit [25]. Training as a form of knowledge management can support the accumulation of skills, experience, and knowledge transfer between workers in the organization [18], which should improve performance. Perceived organizational support, including by means of institution policies and procedures that facilitate knowledge transfer, is positively related to organizational commitment and in-role performance [36]. Supervision is another form of institutionalized knowledge transfer that was the least connected with work performance, which may be due to the rare occurrences of supervision in the career development of the most studied workers (see Table 1).

Surprisingly, knowledge receiving was among the least associated with self-rated work performance forms of knowledge transfer. This may be explained by the limited number of participating workers from the youngest generation at the workplace, Generation Z ( $N = 82$ , 11.1%) from 18 to 29 years old (born 1992/1998–2004/2010 with varying time frames according to different authors [3,8,50–53]), as in the process of unidirectional knowledge transfer, knowledge is shared only from the older knowledge sender (who has acquired more knowledge, company-specific know-how, skills, and work experience) to the younger knowledge recipient, and younger employees seek knowledge from older employees [7–9,18]. Age influences the roles assigned to individuals in knowledge transfer processes, that is, employees perceive the role of knowledge sending as being in line with their higher age, while they perceive the role of knowledge receiving as being in line with their lower age [9].

The results supported the second hypothesis that different forms of knowledge transfer would correlate with each other as well as with the motivational climate at work.

The estimation of supervision as more effective correlated positively and strongly with mastery motivational climate and institutionalized knowledge transfer. Supervision is a form of institutionalized knowledge transfer that is organized if the organization values lifelong learning and strives to support its employees. Supervision could be performed in teams or in dyadic relationships; that is why supervision, perceived as effective, correlated with such forms of knowledge transfer. Supervision is guided by an experienced worker who is usually older than the supervisee, so the perceived effectiveness of supervision correlated with intergenerational knowledge transfer. The effectiveness of supervision could be manifested by received knowledge, so both correlated. Supervision could be one of the ways of transmitting tacit knowledge at work.

Both institutionalized knowledge transfer and intergenerational knowledge transfer are forms of knowledge management [25] that strongly correlated with each other. The organizations could use various forms of knowledge management to facilitate knowledge transfer, which could explain the strong correlations between institutionalized knowledge transfer and all other forms of knowledge transfer. Institutionalized knowledge transfer may be implemented in organizations with a mastery-motivated climate.

Intergenerational knowledge transfer correlated more strongly with team knowledge sharing than with providing knowledge in dyads, so team meetings may facilitate intergenerational knowledge transfer, especially if the organization supports mastery motivational climate. Intergenerational knowledge transfer could permit the sharing of tacit knowledge as well as knowledge receiving, which indicated the usefulness of intergenerational knowledge transfer.

A more private environment in dyadic communication facilitated tacit knowledge sharing. Tacit knowledge sharing happened easily between colleagues from different generations. Tacit knowledge sharing was also implemented in teams. Tacit knowledge sharing was related to knowledge receiving, i.e., the recipient understood the importance of the information that he or she received and

paid enough attention to it. Tacit knowledge sharing could be encouraged by institutional procedures for facilitating the sharing of this kind of knowledge, one of which is through the process of supervision. Mastery motivational climate was a favorable environment for different types of knowledge sharing.

Providing knowledge in dyads was this kind of knowledge transfer that correlated with all other studied kinds of knowledge transfer, as well as with both types of motivational climates at work. Dyadic knowledge transfer between two colleagues constitutes the most basic form of knowledge transfer at the workplace [8]. Knowledge receiving seems to be facilitated in dyads. Performance motivational climate only correlated with providing knowledge in dyads, so competitiveness may be a way of learning something when observing a competent colleague and striving to become as successful as the colleague was. When a person shares knowledge in dyads, the same person probably shares knowledge also in a team.

Knowledge receiving was facilitated by all types of knowledge sharing, especially knowledge transfer in teams and dyads. Only performance motivational climate was not related to knowledge receiving, so valuing competitiveness was not favorable for knowledge receiving.

Mastery motivational climate was the most favorable for team knowledge sharing. Performance motivational climate was the most unfavorable for team knowledge sharing. Motivational climate oriented toward competition probably inhibited team knowledge transfer.

Team knowledge sharing also happened often between workers of different ages, as it correlated with intergenerational knowledge transfer.

Mastery motivational climate was especially favorable for team knowledge sharing and intergenerational knowledge transfer, but mastery motivational climate was accompanied by all kinds of knowledge transfer, as mastery motivational climate at an organization means valuing learning.

The results partly supported the third hypothesis that work experience would correlate with self-rated work performance and different forms of knowledge transfer.

In Study 1, work experience correlated positively with self-rated work performance, i.e., the workers with longer work experience highly estimated their work performance, and the workers with shorter work experience self-rated their work performance as not so good. In Study 2, the length of work experience also correlated with improved work performance, i.e., with less negatively self-assessed work performance. This finding is reasonable, as working more years means accumulating more organization-specific knowledge and experience that permits better coping with work duties. Such findings may be evidence for sincere answering.

Work experience correlated positively with performance motivational climate at the workplace. More years of work experience in the same organization are usually related to career advancement and higher status positions in the organizational hierarchy, which permits favorable social comparisons and recognition, which characterizes a performance motivational climate [35].

Work experience correlated negatively with the estimated effectiveness of participation in supervision as a supervisee; that could be due to the accumulated experience that permits more self-confidence in one's own strengths. A mature worker could need less supervision, and consequently, such a worker would have less to learn from supervision. That is why experienced workers may consider supervision less effective for them than for newly appointed workers.

Work experience correlated negatively with knowledge receiving. Because they accumulate more knowledge and skills with career advancement, mature workers probably more often share their knowledge than receive knowledge.

The research findings supported the fourth hypothesis that higher self-rated work performance correlated with better cognitive functioning, expressed as higher mindfulness. Mindfulness means awareness and more focused attention to the events and experiences at the present moment [41,42], i.e., more attention focused on own thoughts, emotions, and needs, on what is happening right now. Such mindful, present-focused attention is a prerequisite for better execution of complex work tasks.

Finding a correlation between self-rated work performance and mindfulness in view of the established link between different forms of knowledge transfer and self-rated work performance may

be indirect evidence that knowledge transfer has cognitive benefits regarding performance [1]. Cognitive functioning is stimulated by the acquisition of knowledge [54].

Both studies had some limitations regarding the representativeness of samples, a narrow area of occupational domains, and using only self-report questionnaires, not objective measures. If we would like to expand the research focus on gender or generational differences in preferences for different forms of knowledge transfer, we need a larger sample size from each category of participants.

Work performance could be assessed by some objective achievements at work, or peer assessment, or managers' evaluation of their subordinates' performance. However, such approaches may break the anonymity of the collected data.

Besides, it would be better for study design if mindfulness as an indicator of cognitive functioning was assessed in the study focused on knowledge transfer. Some further studies could investigate the direct relationship between mindfulness and knowledge transfer. The current research could only give some prompts that it may be expected that both knowledge transfer and mindfulness facilitate better work performance, or that better work performance stimulates knowledge transfer in the case of mindful attention to the present moment. The direct relationships between the forms of knowledge transfer, motivational climate, and mindfulness may be examined in further studies.

## 5. Conclusions

To the best of our knowledge, this was the first study that focused on various forms of knowledge transfer and established their interconnectedness, which means that stimulating one kind of knowledge transfer could also stimulate many other forms of knowledge transfer, but this may happen only when organizations support mastery motivational psychological climate at work. As far as we know, this was also the first study that established weak but statistically significant connections between self-rated work performance and the various forms of knowledge transfer, especially tacit knowledge transfer, which outlines the importance of the transfer of complex knowledge regarding generalized work experience, ideas, and directions about effective work style for individual work performance. Mindfulness was also positively related to work performance, which means good cognitive functioning accompanied good work functioning, and both may be facilitated by knowledge transfer at the workplace. Occupational engagement under the conditions of a mastery-motivated climate could be a way of maintaining both good cognitive and behavioral functioning.

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