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## **The New Normal of Virtual Team Cohesion – a Qualitative Study to Investigate the Impact of COVID-19**

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# **The “New Normal” of Virtual Team Cohesion – a Qualitative Study to Investigate the Impact of COVID-19**

*Completed Research*

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## **Abstract**

A strong sense of virtual team cohesion can have a variety of positive effects, such as increased performance or self-esteem. For several decades information systems researchers have been studying both task and social cohesion and how to maintain such cohesion in the virtual. However, since one of the major challenges of the pandemic is dealing with feelings of social isolation, research outlines that COVID-19 had and still has a significant impact on virtual team cohesion. Our study examines the “new normal” of virtual team cohesion i.e., how virtual team cohesion strengthening measures have changed in times of the pandemic. To this end, our study presents the findings of a qualitative study with 26 individuals. We were able to shed light on how such measures changed on-the-job, in breaktimes, and after work. Therefore, we provide insights in the “new normal” of virtual team cohesion, which can inform research and practice.

## **Keywords**

Virtual team cohesion, new normal, social team cohesion, task team cohesion, COVID-19, qualitative study.

## **Introduction**

The World Health Organization declared COVID-19 a pandemic on March 1, 2020 (WHO 2020). The pandemic had and still has a lasting effect on our daily lives (AbuJarour et al. 2021). To contain further spread of the virus, multiple nations went into a lockdown and in-person contact was reduced to a minimum, colloquially known as “flattening the curve” (Anderson et al. 2020). These measures succeed in stemming the exponential spread of the virus, but at a horrendous cost to social coexistence (Tabish 2020).

The pandemic has led to a shift in teamwork from face-to-face interaction to virtual teamwork, often referred to in the literature as remote or distributed work/collaboration (Kohn 2020; Venkatesh 2020). The contact restrictions caused by the pandemic pose both temporary and permanent challenges (Hwang et al. 2020). To this end, work teams are forced to change the way they have been working (Carroll and Conboy 2020): physical meetings became virtual meetings and collaboration shifted from physical to virtual (Herath and Herath 2020).

Even though many teams already incorporated virtual collaboration to some extent, the pandemic changed and changes virtual team collaboration in a lasting way (Klonek et al. 2021; Waizenegger et al. 2020). The main reason why virtual collaboration is very different from pre-pandemic is that virtual collaboration is enforced (Richter and Richter 2020). In addition, the pandemic forced the collaboration of different types of employees, including those who previously either did not want to collaborate virtually or were not permitted to do so, for example due to organizational policies (Chamakiotis et al. 2021). Since, the pandemic has changed virtual team collaboration in a lasting way, research highlights to investigate the influence of COVID-19 on virtual collaboration (e.g., Klonek et al. 2021; Waizenegger et al. 2020).

Team cohesion is one of the six key aspects of teamwork quality and therefore a prerequisite for successful team collaboration (Bajaj and Russel 2008; Paul et al. 2016; Yang et al. 2015). Team cohesion is generally understood as the tendency of a group to stick together and stay united (Carless and De Paola 2000; Carron et al. 1989; Paul et al. 2016). Thereby, team cohesion can be divided into social cohesion, which describes the interpersonal bonds within a team and between team members, and task cohesion, which describes the degree in which team members collaborate in an integrated manner to accomplish a team task (Mikalachki 1969). Strengthening the feeling of cohesion in the virtual is even more important because the physical distance can transform into a psychological distance, resulting in demotivation, frustration, and feeling of being left alone (Garro-Abarca et al. 2021; Lepsinger and DeRosa 2015; Paul et al. 2016).

As one of the major challenges of the pandemic is dealing with feelings of social isolation (AbuJarour et al. 2021), strengthening virtual team cohesion became and becomes even more important (Whillans et al. 2021). To this end, literature emphasizes to investigate the influence of COVID-19 on virtual team cohesion (Zeuge et al. 2021). This study addresses this promising research area and examines the “new normal” of virtual team cohesion. “New normal” refers to the changed working environment caused by COVID-19 and subsequent developments (Carroll and Conboy 2020). By shedding light on the “new normal” of team cohesion in virtual teams we explore how measures of maintaining team cohesion in virtual teams have changed in times of the pandemic. To this end we address the following research question: *How has COVID-19 impacted virtual team cohesion?*

## **Virtual Team Cohesion**

Team cohesion satisfies one of the most basic human motivations: the need to belong (Severt and Estrada 2015). Researchers have proposed many alternative definitions of team cohesion. For example, Festinger (1974, p. 274) defines team cohesion as “[...] the total field of forces which act on members to remain in the group. These forces may depend on the attractiveness or unattractiveness of either the prestige of the group, members of the group, or the activities in which the group engages.”. Bollen and Hoyle (1990) describe team cohesion as the team members’ sense of belonging to a team and their feeling of morale associated with membership on that team. In this study we refer to Carron et al. (1989, p. 3) and define team cohesion as “[...] the tendency for a group to stick together and remain united.”.

In 1969, Mikalachki divided team cohesion into social and task cohesion. Social cohesion describes the interpersonal bonds that exist between the team members (Mikalachki 1969). Task cohesion describes the members’ shared commitment to the team task (Zaccaro 1991; Zaccaro and Lowe 1988). This distinction has received much attention, with much research efforts demonstrating support for the notion of separate dimensions (Grossman 2015). For example, a meta-analysis by Mullen and Copper (1994) showed that task cohesion is a stronger predictor of team performance than social cohesion. Other research found that social cohesion is more strongly related to team member satisfaction, while task cohesion is more strongly related to a reduction in absenteeism (Zaccaro 1991; Zaccaro and Lowe 1988).

Team cohesion relates to a variety of positive team collaboration outcomes in a significant way: for example, team cohesion has been linked to increased individual performance and therefore to greater team performance and success (e.g., Bajaj and Russel 2008; Beal et al. 2003; Keith et al. 2018). Cohesive teams are more satisfied with the team process, and are more cooperative and coordinative (Lu 2015; Paul et al. 2016). In addition, team cohesion positively influences team members attitudes, their level of engagement, and their motivation (Carron and Brawley 2012; Keith et al. 2018; Mathieu et al. 2015). Further, team cohesion can have a positive effect on loyalty of team members and their organizational commitment (Greer 2012).

Creating a culture of “belonging” is even more important for virtual team collaboration (Zeuge et al. 2020). The distance between virtual teams may turn into a psychological distance between them (Garro-Abarca et al. 2021) because the degree of team collaboration is lessened due to the limited transmission of rich information (Huang et al. 2009). Virtual collaboration offers limited social interactions within the team compared to physical collaboration and lacks informal or spontaneous exchange opportunities (Lepsinger and DeRosa 2015; Yang et al. 2015). Therefore, strengthening team cohesion is particularly important for collaboration in virtual teams (Lilian 2014; Purvanova and Bono 2009). Cohesive relationships within the virtual team can help to overcome the feelings of loneliness and social isolation (Roy 2012).

## Methodology

In our study we investigated the influence of COVID-19 on virtual team cohesion (Flick et al. 2004). In digital interviews (60 minutes on average, over a span of two month, via Zoom/Microsoft Teams), we interviewed 26 employees from 14 different organizations in Germany. In the following we highlight the distinction between the organization types as follows: 7 large-scale corporations (C) with 14 interviews and 7 small and medium-sized enterprises (SME) with 12 interviews. All interviewees had already worked in virtual teams before the pandemic. We ended our research when all researchers agreed that theoretical maturity was achieved.

To get a wide range of answers and to give the interviewees the chance to speak freely, we used a semi-structured interview-guideline with open questions (Pumplun et al. 2019). We followed Sarker's guidelines for qualitative research to avoid the pitfalls of qualitative semi-structured interviews (Pumplun et al. 2019; Sarker et al. 2013). We revised our first version of the interview-guideline after three pre-interviews. As a result, we added and omitted some questions. After another five interviews we evaluated again and only had to make a few more changes to our guideline.

The interview guide is divided into four parts: We started with general questions about the interviewee (e.g., their age, their background). In the second part, we asked questions to understand how virtual collaboration has been put into practice before the pandemic and today (e.g., How extensive and for what reasons did virtual teamwork take place before COVID-19? How has this changed as a result of the pandemic?). The third part identified opportunities and risks of virtual collaboration (e.g., What technologies were used for virtual collaboration before COVID-19? How has this changed as a result of the pandemic?). In the fourth part, we asked questions about virtual team cohesion and how virtual team cohesion was maintained before the pandemic and today (e.g., What cohesion-building activities were implemented before COVID-19? How were personal relationships built with other team members? How has this changed during the pandemic?).

The interviews were analyzed using the MAXQDA software by means of bottom-up coding methods: in a first step, we read the transcribed interviews and applied the open coding method independently. The sentences and paragraphs were assigned code phrases that best represent the content (Corbin and Strauss 2014; Glaser and Strauss 2017). In a second step, we collected similar codes from the interviews and converted them into axial codes (Corbin and Strauss 2014). In a third step, different opinions were discussed and settled by agreement. In a fourth step, the axial codes were grouped by subject areas. We ended the analysis with saturation.

## Findings

In the following, we outline how COVID-19 impacted virtual team cohesion. To structure our findings, we describe how measures to strengthen team cohesion changed on-the-job (i.e., during work), in breaktimes, and after work. We do this by first delineating what team cohesion measures took place before COVID-19 as well as how they took place, and then describing how those changed in times of the pandemic.

### *On-the-job*

Pre-pandemic, nearly all virtual teams emphasized both starting and closing the week together. The goal of the joint start of the week was to communicate what was coming up in the week and to plan out the week. At the joint closing, the week was evaluated retrospectively, and a glance was taken at the next week.

*“So, we always had a substantive exchange on Mondays. [...] We came together and discussed things that were planned for the week. At the end of the week, [...] we have discussed the week retrospectively and maybe also the next week's agenda.” (SME\_2\_2)*

The joint start and closing of the week were maintained by all virtual teams during the pandemic. However, while the focus pre-pandemic was on exchanging work-related information, the virtual teams now also take time to talk about more personal matters. For example, leisure plans for the upcoming weekend are shared or the latest sports results are discussed.

*“We start Monday morning at nine, we always start the week together, and then we simply talk about personal stuff for 20 minutes. We wouldn't have done that in the past, I would have pretty much said*

*chop, chop, chop, that's what we're doing now. Now it's important for us to start and end together more personally.” (C\_2\_4)*

Besides regular weekly kick-off and closing meetings, many virtual teams held regular *jour fixes* prior to the pandemic. The *jour fixes* had primarily an informative function. The focus was on presenting (partial) results achieved and communicating future strategies and goals. In addition, it was ensured that everybody was informed about who is working on what, next steps were determined, and tasks were assigned within the team.

*“In our jour fixe we had the freedom to discuss a task, to present the result and distribute tasks. This way we brought a structure into the daily work routine.” (C\_1\_2)*

Due to the pandemic, the nature of the *jour fixe* has changed. As before, the informative character is maintained to further ensure that all team members are up to date. In addition to the informative aspects, however, social aspects are also taken into account. The *jour fixe* is used to share information about the individual well-being of the team members and to talk about non-work-related topics and interests.

*“Now we try to address more social aspects. To have the time to not only talk about the job, but also to bring in private aspects.” (C\_1\_2)*

*“The jour fixe during the week is not so much about content. [...] We simply spend 20 minutes talking personally and sharing how we're doing. We didn't do that before.” (C\_2\_4)*

Prior to the COVID-19-pandemic, many virtual teams used audio instead of video conferencing for collaboration. There were several reasons for this: many teams were previously not equipped with the appropriate hardware and/or software. In other teams, organizational guidelines prevented the use of cameras. Additionally, there were also teams that did not see the need for video conferencing.

*“Before the pandemic, we never used our webcams. We only used audio conferences. I think we didn't need it.” (C\_1\_1)*

Due to the pandemic and related curfews all interviewees stated that they turn on the camera. On the one hand, the interviewees feel that this can reduce the perceived distance. On the other hand, the video transmits the body language of the other team members. This enables one to better recognize, which face is expressing concerns and who is perhaps waiting to finally be able to say something.

*“The availability of technologies has changed. [...] Before (the pandemic), web cams were not used. And now? [...] Web cams were bought, so video conferencing was also possible.” (SME\_1\_2)*

*“But with the start of the first lockdown, [...] we decided as a team that we had to turn on the camera so we could see each other. And that became a routine. [...] I think it's better if you can at least see a little bit how the other person reacts.” (C\_5\_1)*

The virtual teams that used video conferencing for collaboration prior to COVID-19 reported that they used digital wallpapers (e.g., with an organization logo) to avoid giving team members insights into their physical surroundings. This prevented team members from gaining insight into private rooms or their whereabouts.

*“We always used a digital wallpaper before.” (SME\_1\_3)*

Most interviewees report that they no longer use digital wallpapers. For them, the insight into the personal “office” (e.g., living room, kitchen) allows team members to identify common interests or learn more about the private lives of their team members. From the perspectives of the interviewees this is more authentic and creates a feeling of closeness.

*“So, a picture, for example, as a background I find distracting. So, you have the feeling that someone wants to hide something. [...] I think you have more insights into the privacy of the other person, which also makes working together a bit more pleasant. And I think this personal aspect is especially important [...] in these times.” (SME\_5\_1)*

Pre-pandemic, many interviewees indicated that they used chats primarily to ask and answer questions at short notice in their virtual team. Thus, a substantive exchange was the main purpose for using chats. Moreover, the interviewees reported that there are clear rules on how to use chats in their teams.

*“We used to handle chats in the team very responsibly. We had clear rules here.” (SME\_2\_2)*

Since the pandemic, chats have been used more informally. Interviewees mentioned that they use chats for asynchronous social interactions such as birthday wishes or to send jokes, Graphics Interchange Formats (GIFs), or videos to their team members.

*“We have been writing a lot more in the chat since the pandemic. And we also try to use the GIF function very extensively, [...] to make the work a bit more fun. [...] So, more informal I would say.” (SME\_7\_2).*

### **Breaktimes**

Nearly all interviewees described that before the pandemic, it was common to turn off the computer and leave the workplace during breaks (e.g., to eat lunch or to go for a jog). In addition, team members flexibly scheduled breaks based on personal preferences and/or their work.

*“We’ve always been able to be very flexible with our lunch breaks; for example, I sometimes jog for two hours on my lunch break.” (C\_3\_1)*

The interviewees emphasized that the relevance of personal exchanges within breaks had increased during the pandemic. They reported that they had created opportunities for their teams to spend breaks together virtually. To that end, many virtual teams have set up virtual break rooms where anyone who wants to can dial in at any time. In this regard, interviewees emphasized that it was not important that all team members or leaders always participate. Rather, they reported that although use the break room was voluntary, the virtual break room was widely accepted and regularly used by their teams.

*“We now have a Zoom-lunch break, which is voluntary. [...] During lunch, you can just join in and talk to your colleagues. Very informally. To create a spontaneous personal exchange.” (SME\_3\_2)*

*“That’s actually how it’s organized now sometimes via Zoom, that we just have a short lunch break together, especially for the colleagues who are completely in the home office.” (SME\_5\_1)*

In addition, it became apparent that many virtual teams transfer the possibilities of physical collaboration to the virtual in order to promote informal and personal exchange (“office grapevine”). For example, the spontaneous coffee break at the coffee machine was virtualized by introducing a virtual “coffee roulette”. Here, team members are randomly assigned to break-out sessions and can exchange ideas over coffee. In this way, a regular informal and personal exchange takes place between all team members.

*“Our leader has then [...] organized a virtual “coffee roulette”. So, just doing something together that doesn’t have to do with work, but still strengthens the team feeling a bit.” (C\_3\_2)*

The interviewees reported that not only opportunities for exchange were created. Rather, since the pandemic, virtual teams have also been actively spending their breaks with each other, for example in the form of virtual sports sessions (e.g., virtual yoga class, virtual office gymnastic). A few interviewees also mentioned that they organized virtual games in their breaks. Organizations have also organized these sessions across teams to strengthen inter-team cohesion.

*“We have recently started office chair gymnastics, [...] where a colleague of ours [...] shows [...] a few things, where you can take part.” (SME\_7\_2)*

*“Or that you simply create an online game that you can play against each other. Or play Ludo or whatever [...]. Just taking a break for half an hour in between and go for it. [...] And these are things you should do now in the pandemic.” (SME\_2\_2)*

### **After Work**

Measures to strengthen team cohesion after work have also changed. Pre-pandemic, large-scale events such as Christmas parties or organization celebrations were mainly used to come together physically as a virtual team. In addition, internal team events such as visiting outdoor parks or participating in organization runs were also used to strengthen team cohesion. A few interviewees reported that they also hosted virtual team events prior to the pandemic, but they were less accepted and preferred. However, almost all interviewees confirmed that there were no spontaneous activities to strengthen team cohesion after work.

*“Before COVID-19 there were Christmas parties. And then there were also a summer party and family parties [...] So it was more planned events and less spontaneous.” (SME\_1\_2)*

*“My policy was always to have virtual events at least once a quarter to keep the mood high. [...] For example celebrating achievements. [...] However, this was not as well accepted as physical events. Only a few people joined in.” (SME\_2\_1)*

In the pandemic, it became apparent that planned physical events such as Christmas parties or organization functions were virtualized to reduce the risk of infection. Here, some virtual teams got very creative by

sending packages to their team members, which were then unpacked together in a virtual meeting. At the Christmas party of interviewee C\_2\_5, the package contents served as the basis for the evening’s activities.

*“What came about around the Christmas party was actually that [...] every employee got a package. There were various things in it that could be used for cooking [...]. And so, all of them got together virtually that evening via Wonder. Everyone had cooked something for themselves and, yes, everyone saw each other virtually at dinner and with recipes that came out of the team.” (C\_2\_5)*

Several interviewees reported that many additional events took place in their teams during the pandemic. These included wine, gin, or beer tastings or jointly organized cooking evenings. Some interviewees mentioned that they participated in virtual sport events with their teams during the pandemic. These sporting and physical competitions have additionally fostered cohesion in the virtual teams.

*“The [...] team in my department did a virtual wine tasting last year. This works quite well, as each employee received a little wine at home and then digitally tasted this wine together.” (C\_3\_1)*

*“[...] we did the virtual sponsor run, where the team appeared as a team and spent the whole night on the treadmill, while it was broadcast live to colleagues.” (C\_2\_3)*

In addition, many virtual teams planned virtual game nights. The interviewees feel that games (such as virtual pub quizzes, virtual escape rooms, massively multiplayer online games, or virtual board games) within or between different virtual teams could strengthen the feeling of cohesion, because they can tackle challenges that have nothing to do with work in an informal and creative way.

*“But there are other possibilities, like this digital escape room. [...] And I have to say that the effects [on team cohesion] are relatively strong.” (C\_3\_1)*

It is particularly interesting that in times of the pandemic, opportunities were created to meet spontaneously virtually after work, in addition to the planned events. Here, the opportunities that arise from teams working together in the same place were transferred to the virtual space. For example, video conferences were used to meet for an after-work drink or regulars’ table.

*“Now, in times of the pandemic, I ask my teammates if they feel like having a beer in front of the monitor after work and [...] chatting or whatever.” (SME\_2\_1)*

## Discussion

In this study we investigated how COVID-19 impacted team cohesion of virtual teams. By conducting 26 interviews, we were able to shed light on how team cohesion measures changed on-the-job, in breaktimes, and after work as a result of the pandemic (see Figure 1).

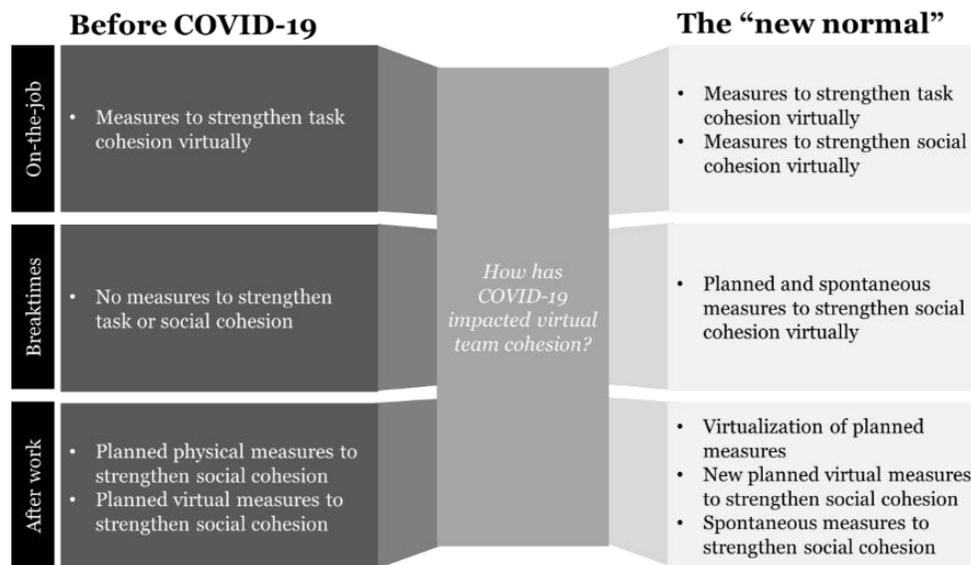


Figure 1: The Impact of COVID-19 on Virtual Team Cohesion in Virtual Teams

Pre-pandemic, measures to strengthen the cohesion of virtual teams **on-the-job** were mainly task oriented. The focus has been primarily on effective and efficient virtual team collaboration and hence on measures to enable planned (e.g., regular virtual meetings) and spontaneous substantive exchange (e.g., chats). Thus, the shared commitment to the team task could be strengthened (Zaccaro 1991; Zaccaro and Lowe 1988). These measures continued during the pandemic. However, due to the pandemic social cohesion in virtual teams has become more important to overcome feelings of isolation and loneliness (Whillans et al. 2021). Since continuous personal exchange increases the feeling of social cohesion in a team (Lilian 2014), many virtual teams deliberately scheduled time for personal exchange with the onset of the pandemic, even in meetings that were previously purely content-based (e.g., *jour fixe*). In addition, many virtual teams took measures to strengthen the feeling of being together in the virtual (e.g., camera on, avoid digital wallpapers) (Zeuge et al. 2021).

Before the pandemic, measures to strengthen social cohesion in virtual teams were mainly conducted after work. In other words, **breaktimes** were spent individually by team members. In our interviews, we could observe that breaks take on a new importance for social cohesion in the pandemic. We were able to identify measures to foster spontaneous personal exchange (e.g., virtual lunch breaks) as well as planned events (e.g., virtual sport sessions). Interestingly, both the spontaneous and planned measures were initiated as a grassroots movement by virtual teams. This may be explained by the fact that social interactions are very important for the well-being of employees (Kakar and Kakar 2018). At the same time, the feeling of being part of a team can reduce the risk of loneliness and the feeling of being left alone (Roy 2012).

Social cohesion in virtual teams was mainly maintained **after work** before the pandemic. To this end, team events or organizational events, such as Christmas parties or summer parties, were organized physically. There were also team events, which were already conducted virtually (e.g., celebrating achievements). However, due to the pandemic all planned events were virtualized (e.g., virtual Christmas parties) and were widely accepted. Indeed, with the outbreak of the pandemic, many virtual teams planned new and more regular events (e.g., virtual game nights) to strengthen social cohesion virtually. In addition, after-work events such as after-work beers were organized to get together spontaneously. This indicates that social cohesion has gained importance for many virtual teams even beyond work (Whillans et al. 2021). Working networks appear to be of greater importance in the pandemic (Marx et al. 2021).

Although virtual team cohesion has been studied for many years, the pandemic has fundamentally changed the nature and needs of virtual teams (Chamakiotis et al. 2021), making it necessary to reexamine virtual team cohesion. Our research contributes to the current state of knowledge by addressing the demand of further investigation on the “new normal” of virtual team cohesion (Waizenegger et al. 2020; Zeuge et al. 2021). Our study outlines to foster social cohesion as mandatory to overcome feelings of loneliness and social isolation. The primary cause is that people were isolated during the pandemic and craved social interaction and companionship. Social cohesion strengthening measures were brought to the forefront in virtual teams to address these needs. With our study we highlight that both planned as well as spontaneous cohesion strengthening measures, help to reduce psychological distance in times of social distancing. Future research can build up on these findings and investigate the influence of those measures on virtual collaboration outputs such as well-being, performance or organization commitment in times of the pandemic (Marx et al. 2021) in more deep. In addition, we outline that many measures for strengthening social team cohesion are translated from face-to-face collaboration to virtual collaboration. Examples include after-work drinks or virtual coffee breaks. Transferring proven measures from the real world to the virtual world to overcome the psychological distance offers a promising research area. Future research can build up on this finding and investigate if this transformation may apply to other areas of virtual collaboration, such as organization commitment.

Based on our findings, we also can derive implications for practice. For practitioners, this study is a clear indication that COVID-19 has caused a change in virtual team collaboration and virtual team cohesion. The advantages and disadvantages of the actual change are not the focus, but rather the result as such; the “new normal” of virtual team collaboration is a fact that needs to be considered and respected. If leaders and organizations accept the “new normal”, then there are many ways to shape it. As an example, the coffee roulette is a practical measure. Adapting implicit exchanges from the real world to the virtual world created improved team cohesion that did not exist in virtual teams prior to COVID-19. In addition to these measures, other measures have been described in this study that can serve as best practices for leaders and organizations for the “new normal”. The “new normal” will become indispensable in professional practice.

Virtual or at least hybrid working in organization work processes will also exist in a post-COVID-19 era. In this context, leaders, and organizations in particular are called upon to actively accompany this development and support it with suitable measures.

## **Outlook**

Qualitative studies are able to generate deep insights into a subject that quantitative studies lack. This is what our qualitative study based on a total of 26 interviews about changes in virtual team cohesion through COVID-19 can provide. In compiling the sample, we took care to ensure the greatest possible diversity of interviewees to be able to represent a multitude of perspectives. This enables our qualitative study to still have good generalizability. Like any other empirical study, this study has typical limitations of qualitative research, but they also motivate further research. In a next step, our findings can be empirically supported by quantitative research, for example. Here, it seems particularly beneficial to distinguish the effectiveness on virtual team cohesion based on the identified measures. That there is a general effect could be explored through this study, but how large these effects are compared to the other identified measures could provide further exciting insights. In such cases, it might be helpful to explore interdependence through qualitative analysis.

It is likely that national factors, such as general societal attitudes towards COVID-19 and national COVID-19 prevention measures, could have an influence. However, these factors of internationality were neglected since the focus was on the general change in virtual team cohesion. To this end the consideration of these factors could broaden the perspective on virtual team cohesion. In addition, cultural aspects were neglected. Therefore, this study offers potential for further research. It could help to develop a more general theory about appropriate measures for virtual team cohesion. This would create the possibility of including external or personal factors in the analysis.

This study examined the “new normal” of team cohesion i.e., the change of team cohesion in times of the pandemic. Since this study is a snapshot of the current situation, it is likely that as the pandemic recedes, virtual team cohesion will be further impacted. This new “new normal” (i.e., the time after the pandemic) would then have to be reexamined and redescribed. However, the discussion participants agreed that the impacts of COVID-19 will remain in the future. Further research is recommended here, including to further challenge counterproductive behaviors, negative attitudes, or details about the technology.

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