

The role of dyadic relationships for health behaviors: Opportunities and challenges

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Social relationships play an important role for people's mental and physical health (e.g., Holt-Lunstad et al., 2010). There are different

pathways that could possibly explain this effect: For example, better social integration could lead to more social support from network members that in turn might reduce perceived stress, and promote health behaviors -both of which are important determinants of health (Berkman et al., 2000). Here, I will focus on the relevance of social relationships for health behaviors.

Health-relevant behaviors, such as eating, smoking, or physical activity oftentimes take place in a social context. For example, imagine someone who starts their day with having breakfast with their family, then eats lunch with colleagues from work, and enjoys dinner again with their family or with friends. In contrast to this social embeddedness of health-relevant behaviors, the vast majority of mainstream theories of health behavior focus exclusively on factors within individuals, e.g., attitudes, perceived behavioral control or subjective norm, that is the subjective perception of the social environment (Ajzen, 1991). External influences, such as social factors that go beyond the individual's perception and emerge from interactions with others are much less frequently and not in depth addressed in the health behavior literature. Consequently, even less frequent in the mainstream theories on health behavior change are dyadic approaches that take the perspectives of two people involved in the behavioral change into account (for an important

exception, please see Huelsnitz et al., 2021).

Social exchange processes and health behavior

There is cumulating correlational research on the role of different social exchange processes, such as social support or social control for health behavior change. Social support, defined as the exchange between provider and receiver (Hogan et al., 2002), can take different functions with the most prominent ones being emotional and instrumental support. Emotional support contains caring, comforting, and soothing, while instrumental support refers to practical help, such as resource provision or problem solving (Knoll et al., 2018). Both forms of social support have been shown to relate to fewer cigarettes smoked in smokers intending to quit in both dual- and single-smoker couples (Lüscher et al., 2017; Scholz et al., 2016). At the same time, results of intervention studies aiming at increasing social support from various non-professional sources for smoking cessation show rather sobering effects on the behavior (Park et al., 2012; Schwaninger et al., 2021). This might in parts be explained by the interventions failing to increase social support in the first place. Thus, it is key to identify the conditions under which social support can be increased by interventions aiming at changing behavior and to examine under what circumstances increased social support is indeed serving as a mechanism to change the behavior (Rothman & Sheeran, 2021).

Another social exchange process, albeit less prominent than social support, is social control (Butterfield & Lewis, 2002). Social control aims at influencing and regulating another person's behaviors by means of specific interpersonal strategies (Butterfield & Lewis, 2002). These strategies are often distinguished into positive (e.g., discussions about the health behavior) and negative (e.g., using pressure) ones. In line with the extended dual-effects model of social control and a recent meta-analysis that was mainly based on cross-sectional studies (Craddock et al., 2015) we found across three daily diary studies on smoking and physical activity that positive social control was beneficially related to the health behavior and to feeling better, while negative control was unrelated to the behavior, but related to feeling worse and to more reactant responses, i.e., doing the opposite of what the partner wanted and hiding the unhealthy behavior (Scholz et al., 2021). The within-person effects primarily emerged on the same but not from the previous day indicating that daily social control seems to be a fast acting process. Future research on social control should further examine the conditions under and outcomes for which social control is beneficial. And this should preferably be investigated in people's everyday life and in dyads. In particular the motivation for providing positive and negative social control is underresearched, but would be necessary to know for allowing to reduce dysfunctional and increase beneficial dyadic social control interactions.

Dyadic interventions for health behavior change

Aside from social support and social control as two examples for interpersonal exchange processes that have been investigated in the context of people's health behavior change, there is a growing literature on dyadic interventions for promoting

health behavior change. Overall, several systematic reviews, and meta-analyses report a certain superiority of dyadic interventions compared to individual-focused interventions (Arden-Close & McGrath, 2017; Carr et al., 2018; Richards et al., 2017). But there is a considerable heterogeneity regarding the population under study (e.g., healthy adolescents, adult patients), the dyadic constellation (e.g., romantic couples, peers, parent-child-dyads), the type of dyadic intervention (i.e., what role do the two partners play in the intervention), the behavior change techniques used in the dyadic interventions, the target of the behavior change (both dyad partners or only one), the kind of behavior targeted, the contexts of behavior change, and the time span considered in the intervention (Arden-Close & McGrath, 2017; Carr et al., 2018; Martire & Helgeson, 2017; Richards et al., 2017). Consequently, there is a great need for more systematization of dyadic intervention research. One starting point is the question what a dyadic intervention technique is and what kinds of intervention techniques there are. We introduced a continuum of intervention techniques ranging from individual techniques in a dyadic setting with the partner being present but passive, to dyadic techniques that require both partners to be actively involved in the intervention (i.e., joint techniques; Scholz et al., 2020). Moreover, as it was the case in behavior change interventions targeting individual behavior change before the behavior change taxonomies were introduced (Kok et al., 2016; Michie et al., 2013), there is a lack of systematization in reporting the content of the dyadic intervention techniques. In a recent systematic review on dyadic health behavior change, only three out of 14 intervention studies reported what couples were asked to do (e.g., identify ways the spouse could support the other's diet and activity programs), with all other studies not reporting specifics of the intervention content (Arden-Close & McGrath, 2017). This is a major problem in this field as it prevents accumulating

knowledge with regard to the effectiveness of specific intervention techniques applicable in dyads. In an ongoing project that is funded by the Swiss National Science Foundation and the German Research Foundation we are currently working on the development of a compendium of dyadic intervention techniques (see <https://osf.io/r43v6/>). A first step of this project is a systematic review of the landscape of dyadic intervention techniques in romantic couples (PROSPERO, CRD42021261622; Villinger et al., 2022). In this review we categorized the different dyadic intervention techniques and descriptively present frequency in reporting across different health-related behaviors (i.e., HIV prevention, physical activity, etc.; Villinger et al., 2022). This work lays the ground of developing a prototype compendium / taxonomy that will subsequently be refined. With this project, we will contribute a first step to the much-needed systematization in dyadic interventions research.

Conclusion

The relevance of social relationships for health can in parts be explained by the mostly beneficial effects of social relationships on people's health behaviors. Research on interpersonal processes, such as social support and social control, shows the opportunities, but also the complexity and challenges that lie in capitalizing social relationships for health behavior change. So far, the great heterogeneity prevents the accumulation of knowledge on which specific dyadic intervention techniques are effective (and under which conditions). More research is urgently needed to contribute to a systematization in this area and thereby allow a better understanding on how to best capitalize people's social relationships for health behavior change.

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