Abstract

Paranoia is defined as an extreme state of mistrust and suspiciousness toward others. It is characterized by unfounded beliefs that people are the primary source of threat, have hostile intentions, and that their actions are directed to cause deliberate harm. Although paranoid thoughts are typically associated with psychotic disorders, it is increasingly emphasized that such thoughts occur along a continuum: at one end are paranoia-like thoughts, observed to varying degrees in healthy individuals in the general population, and at the other are persecutory delusions characteristic of disorders in clinical contexts. In accordance with this view, paranoia is suggested to have a hierarchical structure, with heightened interpersonal sensitivity at its core. This sensitivity encompasses fears of critical evaluation and social rejection, a sense of vulnerability to harm, and the belief that the world is a dangerous place. While the vast majority of individuals in non-clinical populations experience paranoid thoughts as interpersonal concerns, the sense of vulnerability to harm is considered the foundation upon which persecutory delusions can develop. Therefore, identifying risk factors that may exacerbate perceived vulnerability to social harm appears to be a key direction for future research.

Vulnerability to harm can stem from many sources, including negative beliefs about oneself, other people, and the world in general. The aim of my doctoral dissertation was to examine the roles of two novel factors, i.e., negative body image and misophonia symptoms, in the context of paranoia, and to situate them within a broader context to understand their interrelations with other, previously identified risk factors. This dissertation consists of a series of five articles encompassing correlational studies (Study 1, 2, and 3), an experimental study (Study 4), and an intensive longitudinal study using the experience sampling method (Study 5). It also presents the results in the form of two complex network models of paranoia-related factors from structural (Study 2) and temporal (Study 5) perspectives.

The first study in the series (n = 539) aimed to understand the relationship between negative body image and paranoia-like thoughts. Although global self-esteem in relation to paranoid thinking has frequently been examined in previous research, body image has only recently begun to be considered as a potentially important factor in this context. Previous studies suggested that negative self-perceptions, including those related to physical appearance, may increase feelings of being "inferior" and thus vulnerable to harm from others. However, these findings were preliminary and indicated the need for further research, including validation of the proposed hypotheses. Our results showed that the association between negative body image and paranoia-like thoughts is statistically significant. Moreover, negative affect, low self-esteem, and rejection sensitivity significantly mediated this relationship, thereby supporting the hypothesis of vulnerability to harm as a potential mechanism explaining this link. The findings also showed that higher levels of paranoia were significantly associated with general dissatisfaction with one's body appearance, rather than solely with the perception of the body as being too large, as previously suggested.

The second study (n = 1019) aimed to develop a complex network model of factors associated with paranoia-like thoughts and to determine the role of negative body image within a broader context. The

study employed an extensive battery of questionnaires assessing paranoid ideation, traumatic experiences, sleep quality, rejection sensitivity, negative emotional states, aberrant salience, self-esteem, and, for the first time within a network approach to paranoia, negative body image. The results showed that negative body image, as well as negative emotional states (stress and anxiety), low self-esteem, rejection sensitivity, and childhood emotional neglect were the most central variables in the model, underscoring their potential therapeutic significance.

The aim of the third study (n = 312) was to introduce a novel factor that had not previously been examined in the context of paranoid thoughts. Misophonia (selective sound sensitivity syndrome) is a disorder in which certain sounds, most often those produced by other people, evoke a strong, negative emotional, behavioral, and physiological response. Previous research has shown that misophonic reaction depends on the context in which the triggering sounds occur. One prior study found that the response to misophonic sounds is stronger when hostile intentions are attributed to the person producing them. Misophonic triggers are usually everyday sounds (e.g., eating or breathing sounds), which often makes them difficult to avoid without social isolation. A lack of adaptive emotion regulation strategies may therefore contribute to living in a constant state of stress and anxiety, in a world filled with threatening stimuli, which renders it a dangerous place and the person experiencing misophonia symptoms more vulnerable to harm. This study was exploratory in nature. The results showed that misophonia symptoms are significantly associated with higher levels of paranoia-like thoughts in a non-clinical population, and that this relationship is mediated by difficulties in emotion regulation, elevated anxiety, and a tendency to attribute hostile intentions to others.

The fourth study (n = 487) aimed to empirically verify the relationship between misophonia symptoms and paranoia-like thoughts. To this end, we designed and conducted an experimental study to test whether exposure to common misophonia trigger sounds would increase paranoia-like thoughts - either directly or through negative affect. The results showed that exposure to misophonia trigger sounds led to an increase in paranoia-like thoughts, but this effect did not reach statistical significance, emerging only at the trend level. However, the relationship between exposure to misophonia triggers and the level of paranoia-like thoughts was significantly mediated by an increase in negative affect. The remaining (control) experimental conditions showed a decrease or no change in the level of paranoia-like thoughts following exposure to the experimental stimuli. The findings also indicated that, among various aspects of misophonia, paranoia-like thoughts were most strongly associated with internalizing appraisals, i.e., blaming oneself for the reactions to triggering sounds, thereby highlighting a possible underlying mechanism consistent with the hypothesis that vulnerability to harm forms the foundation for the development of paranoid thoughts.

The fifth and final study in the series (n = 175) employed the experience sampling method and a dynamic, temporal network approach. This study aimed to understand the structure of, and mutual interactions among various factors that may increase perceived vulnerability to harm, and thus form the basis for paranoid thoughts development. This study also sought to place the key factors of this

research cycle (negative body image and misophonia symptoms) within a broader context of variables associated with paranoid thinking. Participants were drawn from the general population and included individuals with low levels of paranoia-like thoughts (n = 103) and those with high levels (n = 72). For seven days, eight times per day, participants completed surveys measuring paranoia-like thoughts, various aspects of social functioning, perceived social rejection, negative affect, negative body image, and misophonia symptoms. Network models were estimated for the total sample and separately for the subgroups differing in levels of paranoia-like thoughts. The results showed that the most central variable in the model was perceived social rejection, which was also the only variable to exhibit a direct, bidirectional association with paranoia-like thoughts. Contrary to our hypotheses, paranoia-like thoughts were not the most strongly predicted variable in the model. Instead, paranoia emerged as the strongest predictor of other variables over time. Between-group comparison analyses revealed that, despite a similar network structure in both groups, individuals with higher levels of paranoia-like thoughts exhibited a greater number of significant, direct connections between variables, and these relationships were stronger, as compared to those in the control group. These findings may suggest the need for early interventions targeting central symptoms within the network.

Drawing on the concept of vulnerability to harm and the conceptualization of mental disorders as complex networks of interrelated factors, the series of studies presented in this doctoral dissertation expands existing knowledge by identifying new risk factors for the development of paranoia-like thoughts in a non-clinical population and situates them within a broader context of interactions with other, previously identified variables.

Key words: paranoia, paranoid thoughts, body image, misophonia, risk factors, vulnerability to harm, network approach to psychopathology, experience sampling