MASTER THESIS

#mentalhealth

The effect of influencer messages on burnout self-diagnosis and the intention to act

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Abstract

Mental illnesses are one of the most common health issues today. As the awareness for mental health is increasing, the ways people communicate about it and seek information about it, have changed drastically as well. With the rise of the Internet, health information has become available online and help seeking and diagnosis have partly shifted to the online environment as well, as people increasingly seek information themselves, without consulting a professional first. However, to date, there is still limited research into how mental health messages on social media are perceived are and whether the message characteristics affect how the message recipient perceives his or her own health situation. The current study aimed to fill this gap.

In a 2x2x2 experimental between-subject design, 245 participants (age M = 25.55, highly educated, frequent Instagram users) from 48 countries were selected through convenience and snowball sampling and were exposed to a fictitious Instagram post that was manipulated based on burnout message characteristics, namely directness of the burnout description, the situational context (personal vs. factual) and the presence of a call to action. Liking and credibility attitudes and identification with the fictitious influencer were considered as mediators, while trust in Instagram operated as a covariate. After being exposed to the research stimuli, the participants reported about the measures in an online questionnaire to investigate to what extent the message characteristics would influence self-diagnosis and the intention to act.

A multivariate analysis of covariance revealed that self-diagnosis and the intention to act were not influenced by the message characteristics directly. However, an interaction effect of situational context and the call to action was revealed. Additionally, significant effects were discovered of the attitudes towards the message (liking and credibility) and identification, on self-diagnosis and the intention to act. Furthermore, trust in Instagram had a strong effect on the outcome variables as well.

This study contributed specific insights into how influencers should communicate about mental health and how this communication affects the audience's behaviour, and it revealed relations between self-diagnosis and the intention to act, and the attitudes towards the message and the source Instagram, as well as identification. Future research might explore these findings in more depth.

Keywords: mental health, online mental health communication, self-diagnosis, help-seeking

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1. Introduction

Mental health is one of the most prominent topics of our time. In 2017, almost 800 million people were living with a mental health disorder (Ritchie & Roser, 2018). One out of four people are estimated to suffer from a disorder at some point in their life (World Health Organization, 2001). Mental illnesses impact people's everyday life, as they limit people's ability to carry out daily activities, for instance household tasks, and active participation in society (Keyes, 2003). However, a vast number of mental illnesses remain untreated, due to stigma, fear of discrimination and self-stigmatization (Hinshaw, 2005; Sartorius, 2002; Barney, Griffiths, Jorm, & Christensen, 2006; Schomerus, Matschinger, & Angermeyer, 2009). The stigma can be reduced by raising awareness and increasing people's mental health literacy, knowledge of illness symptoms and treatments, through awareness campaigns and prevention interventions (Clarke, Kousmanen, & Barry, 2015). Generally, the Internet has become an important space for information-seeking regarding mental health. Giles and Newbold (2013) describe how the anonymity of the Internet offers people the opportunity of reaching out to and seeking help from peers in health communities who suffer from the same disorders without having to fear stigma. Others utilize online sources to seek information about and rankings of specific treatments (Yan & Tan, 2017). Furthermore, the Internet is increasingly used as a diagnostic tool. Due to the ease of usage and the abundance of information available, users can look up symptoms and seek diagnosis without having to consult a professional first (Rahal, Vadas, Manor, Bloch, & Avital, 2018). It is not surprising that many awareness campaigns and mental health interventions have shifted to an online environment as well (Clarke, Kousmanen, & Barry, 2015). Examples for this are trainings on wellbeing, mindfulness or resilience, computer games aimed at increasing mental health literacy or promotion of help-seeking methods, as Clarke, Kousmanen and Barry (2015) have revealed in their systematic review of online mental health interventions. Mental health messages have also taken a strong presence on social media. There are millions of Instagram posts that are labelled with the hashtag #mentalhealth and thousands of YouTube videos of people sharing their own mental illness story. Many of these posts come from so-called influencers, opinion makers with a large online following that influence their audience's attitudes and behaviour (Grabs & Sudhoff, 2014).

The question remains whether social media posts by influencers regarding mental illnesses differ from traditional mental illness content, like awareness campaigns, regarding their effect on the recipient of the message. It seems that, to date, there has been no study that has investigated how people react to mental health messages by influencers and whether there are specific response behaviours as outcomes of influencer social media posts about mental health, similar to how traditional campaigns target diagnosis, help-seeking or mental health literacy. The current study aims to fill this gap, by specifically investigating the response behaviours self-diagnosis and intention to act, entailing help-seeking and information sharing. This study has used the context of burnout, as it is less likely to trigger dangerous and harmful behaviour from recipients of a message compared to depression or anxiety disorders.

Firstly, influencer posts about mental illnesses might be used as a tool of self-diagnosis. People who suffer from specific symptoms could realize that their situation is, in fact, due to a mental illness and use the post to self-diagnose themselves. Secondly, influencer messages might inspire people to step up and seek help regarding their personal health situation. As influencers share their own stories or facts about mental health, they aim to break the stigma that is still strongly attached to the topic of mental illnesses as well as seeking treatment and help. Another action that people could undertake is to help spread awareness by sharing the information from the post with their own personal environment.

The current study aims to discover how people apply influencer mental health messages to their own situation. To this end, it was investigated if the content of these messages determines whether social media users use them as self-diagnosis tools or whether they intend to act upon reading a post. Three major characteristics of influencer burnout messages have been identified. The first one concerns the directness with which an illness or disorder is described. An influencer can choose to directly describe a specific illness or to keep it vague and use an indirect description. Influencers want to appeal to a wide audience, therefore using the indirect label stress instead of burnout might result in more people feeling addressed by the post, as stress is something that the majority of people will feel at some point in their life. The direct label burnout likely increases the urgency and the impact of the post, as it refers to a recognized mental disorder that requires treatment.

Apart from directness, the overall context of the post needs to be considered. The situational context refers to the narrative perspective that the information about burnout is presented in. The current study differentiated between a personal approach, where the influencer shares his/her own story with burnout, and a factual approach, that is not linked to the influencer and is purely informational, for instance by referencing scientific studies in the field of burnout.

Adding a call to action indicates to the reader that the information in the post had a purpose, namely helping people who also suffer from burnout symptoms. Without a call to action, it might just seem like the influencer shares his/her story without any added benefit for the reader.

The findings of this study might advance research in the fields of influencer communication, self-diagnosis and help-seeking and awareness intentions. Future studies may build on the results to offer in-depth comprehension of these fields. The findings of the current study may also offer important insights for practical application, for instance for the makers of mental health guidebooks or online content regarding mental health symptoms and diagnosis. They might be able to use the findings as writing guidelines, for instance to determine what message aspects are the most influential regarding help-seeking intentions. Furthermore, the results could give Instagram posts about mental health a useful purpose, so that they can be used as tools for raising awareness with more predictable outcomes.

It has been widely researched that the Internet is used as a multipurpose tool in the context of mental health; however, to date, there seems to be no previous research that has targeted aspects of online mental health messages and their influence on the recipient specifically. To investigate to what extent people apply online mental health messages to their own health situation, the following research question has been formulated:

RQ: To what extent do characteristics of influencer mental health messages about burnout affect burnout self-diagnosis and the intention to act?

2. Theoretical framework

2.1. Mental health, awareness and Internet usage

2.1.1. Mental health literacy and the Internet

One quarter of all people will suffer from a mental illness at some point in their life (World Health Organization, 2001). However, worldwide, less than 30% of people who suffer from mental health issues receive professional help (Henderson, Evans-Lacko, & Thomicroft, 2013). This has dramatic results as mental disorders drastically limit people's ability to live a normal life, since the ability to carry out simple daily activities is restricted (Keyes, 2003). Previous research has identified multiple reasons for this low percentage. Firstly, there seems to be a lack of knowledge that is required to identify mental illnesses in oneself and others, as well as knowledge about accessing treatment (Henderson, Evans-Lacko, & Thomicroft, 2013). Knowledge of mental illnesses as well as of professional ways of treatment and support is referred to as "mental health literacy" (Kelly, Jorm, & Wright, 2007). Mental health literacy of adolescents, young adults and adults is generally low, as studies have shown where participants failed to recognize mental disorders in others and could not identify professional help (Kelly, Jorm, & Wright, 2007). Secondly, people who suffer from mental disorders often face prejudices and discrimination, and are therefore afraid to publicly acknowledge their mental illness (Henderson, Evans-Lacko, & Thomicroft, 2013). From an early age on, the stigma that is attached to mental illnesses creates a barrier to treatment and prevention (Hinshaw, 2005, Sartorius, 2002). The first signs of mental illnesses often arise in young adults and adolescents, making secondary school students and university students a high-risk group (Kelly, Jorm, & Wright, 2007). However, young adults prefer to seek help from friends and family, instead of seeing a professional, for example a psychologist or general practitioner (Burns & Rapee, 2006). Professional training programmes and interventions at educational institutions often aim to increase mental health literacy in specific groups or entire populations (Kelly, Jorm, & Wright, 2007). Generally, the stigma that is attached to mental health issues can be decreased through nurturing understanding and mental health awareness, ultimately reducing (social) exclusion and breaking down the barrier to treatment seeking (Sartorius & Schulze, 2005).

The lack of knowledge about mental illnesses and professional treatments, as well as the feared prejudices and discrimination, leave (young) people searching for information by themselves, usually online (Rahal, Vadas, Manor, Bloch, & Avital, 2018). The ease of using the internet and vast sources of information allow users of the Internet to look up symptoms online and seek diagnosis from wherever they are. For example, in the field of dental health, graduates have been found to prefer the internet as a self-diagnostic tool over the diagnosis by a physician (Maddula, Ariga, & Jain, 2018). Internet use is also rather common amongst people who suffer from mental illnesses, as prior studies have revealed (Rahal, Vadas, Manor, Bloch, & Avital, 2018). For example, online platforms, communities and fora are often used to seek help from peers (Giles & Newbold, 2013) or to find ratings of and information about specific treatments (Yan & Tan, 2017). With the rising awareness, people seem to be more willing to share personal experiences with mental illnesses online. Especially social networking sites give users the ability to exchange information with peers and find mental health information online. For example, there are more than 200,000 search results for the keywords "mental health" and "story" on the video platform YouTube as of August 2019. Additionally, there are millions of posts about mental health on Facebook, Instagram, Pinterest and other social media.

2.1.2. Instagram, influencers and mental health

One of the biggest social media sites nowadays is Instagram. According to Statista, Instagram has approximately 1 billion monthly active users as of June 2018 and 500 million people who use the platform daily (Clement, 2019). Instagram's user base is young, with half of all of users being younger than 34 years old and the application being the second most preferred among U.S. teenagers, behind Snapchat (Clement, 2019). Additionally, more women than men use Instagram, especially younger women. In fact, 15% of active users worldwide were found to be women between 18 and 24 (Clement, 2019). Mental health is a topic that is frequently targeted on Instagram. The hashtag '#mentalhealth' contains almost 12 million posts and '#mentalhealthawareness' more than 5 million. Similar to YouTube, users share their personal stories with mental illnesses and sometimes give advice about how to handle mental health issues. While mental health on social media has been frequently studied in the past, there has been little research about the content of the messages that are communicated to

fellow social media users. The current study therefore investigates whether specific aspects of these messages on Instagram influences how the recipients of a message perceive their own mental state.

A key role as opinion leaders and senders of online messages on Instagram and other social networking sites falls to the so-called influencers. Previous research has defined influencers as people who use their reach, status, credibility, popularity and expertise to spread (advertising) messages, for instance about products or brands, on various communication channels, thus acting as opinion makers that influence their audience's attitudes and behaviour (Grabs & Sudhoff, 2014; Jahnke, 2018; Kobilke, 2017). An additional and unique aspect of influencers is their close relationship with their audience. Instead of merely being a sender of messages, influencers can interact and communicate with individuals who engage with their content in a personal way, which is considered the strength of influencer marketing as opposed to traditional marketing (Fischer, 2016; Lammers, 2018). Being relatable for an audience creates trust and credibility, making messages more effective (Haapasalmi, 2017). Followers can perceive the influencer as their friend, can idolize them or mimic their attitudes or behaviour (Haapasalmi, 2017). The concept of influencers is by no means new, as important people who are in the eye of the public, like athletes, singers, actors or other celebrities, have been used as brand ambassadors and marketing tools for decades (Jahnke, 2018). What has changed through social media, is the opportunity for the average person to rise to an influencer status by building a large following (Jahnke, 2018).

Influencers can be categorized into micro and macro influencers, based on the size of their follower base. Kobilke (2017) labels people with an audience of between 5,000 and 25,000 followers as micro influencers and those with more than 100,000 as macro influencers. The group in the middle is referred to as the power-middle-class, as they combine the strengths of the micro and macro influencer groups. A smaller community of followers, despite meaning a more limited reach, is often more willing to engage with a post, for instance through comments or likes, and the influencer can communicate in a personal and close manner more easily, compared to a macro influencer, who often has a wider reach but lower engagement (Andrae & Rodewald, 2019; Rocho, 2018). Furthermore, macro influencers less often have a niche that their content is focusing, for example fashion, sports or health, which is assumed to be one of the reasons for lower engagement (Andrae & Rodewald, 2019;

Rocho, 2018). Macro influencers with a focus or niche do exist though and can be referred to as medi-influencers (Andrae & Rodewald, 2019). Due to this, Andrae and Rodewald (2019) argue that for effective marketing purposes, brands should choose to work with micro, power-middle-class or medi-influencers that fit the brand with their niche.

2.1.3. Dangers of online mental health content

While there are certainly many advantages of Internet and social media usage regarding mental health, there are also dangers that need to be acknowledged. Online communities and social networking platforms have aided in a process called romanticization of mental illnesses, which refers to making something appear more appealing than it is in reality (Romanticize, n.d.), by displaying mental disorders as normal or desirable. Online communities often do not merely give advice, but they also tend to focus on diagnosis (Giles & Newbold, 2013). Community members discuss symptoms and share self-diagnosis tests and quizzes, which do not always have accurate results (Giles & Newbold, 2013). This can lead to mental illnesses and disorders being perceived as normal (Giles & Newbold, 2013) and sometimes even as desirable or attractive, similar to pro-anorexia communities (Gavin, Rodham, & Poyer, 2008). Especially the microblogging and social networking site Tumblr has been associated with a dangerous portrayal of mental illnesses and self-harm. Previous studies confirm the presence of entire Tumblr communities that idealize anorexia (De Choudhury, 2015), depression, self-harm and suicide (Cavazos-Rehg et al., 2009). Additionally, online mental health information frequently lacks scientific evaluation and does not accurately describe an illness, its symptoms and treatments (Christensen & Griffiths, 2000). Self-diagnosis based on these shallow descriptions of symptoms can negatively impact people's health. As social media posts about mental illnesses offer limited information also, it should be investigated how they are perceived by users and whether they affect users' behaviour. This study investigates two specific response behaviours, namely self-diagnosis and the intention to act, entailing help-seeking and information sharing, as those seem to be reoccurring behaviours in existing mental health campaigns and online communities. The following section will elaborate on these behaviours.

2.2. Response behaviours

2.2.1. Self-diagnosis

As described in the previous section, internet fora and communities concerning health are often used as tools for self-diagnosis (Giles & Newbold, 2013). Self-diagnosis refers to a medical diagnosis that is based on self-reported symptoms, which have not been observed by a healthcare professional (Ryan & Wilson, 2008). There has been an increase in online sites that support self-diagnosis, as it is assumed to empower patients and to increase their freedom in choosing between self-treatment and consulting a doctor (Ryan & Wilson, 2008). A health disorder that has experienced a wave of false self-diagnosis in the past, is non-celiac gluten sensitivity. People have started to adopt a gluten-free diet based on individual symptoms that, in fact, were not related to gluten but other food intolerances, and without having been diagnosed by a health professional (Biesiekierski, Newnham, Shepherd, Muir, & Gibson, 2014). Symptoms of other health issues were falsely identified as a gluten sensitivity. Regarding mental health, self-diagnosis quizzes and tests are common in online fora (Giles & Newbold, 2013) and could potentially lead to a similar wave of self-diagnoses. It is still unclear whether social media posts are used as self-diagnostic tools as well, which is why this study aims to fill this gap.

Since mental illnesses are a sensitive topic that can cause harm by triggering existing disorders, like depression or anxiety, the researcher has opted to use burnout as the mental state that is being investigated in the current study, due to its definition by the WHO. The World Health Organization classifies burnout as a syndrome related to long-term work-related stress, that is not successfully managed (World Health Organization, 2019). According to the WHO, burnout is not considered a medical condition; however, it is seen as a factor influencing health that people seek and should seek help from health services for. However, studies find that burnout can ultimately lead to serious mental illnesses, such as anxiety or depression, as well as feelings of frustration, aggression and fear (Rahmati, 2015). Burnout is characterized by the following three dimensions: feelings of low energy and exhaustion, increased feelings of negativity, mental distance or cynicism towards a work position, and decreasing professional efficacy (World Health Organization, 2019). A study conducted by the analytics and advice firm Gallup among 7,500 full-time workers has revealed that almost one

quarter of the respondents was reporting frequently feeling burnt out and an additional 44% indicated occasional feelings of burnout (Wigert & Agrawal, 2018). Furthermore, five main reasons for burnout were identified: biased treatment at work, an overwhelming workload, lack of clarity concerning position and expected tasks, lack of support and proper communication from supervisors, and unreasonable time constraints and pressure (Wigert & Agrawal, 2018). While the WHO classifies burnout as specifically related to the workplace, previous studies have considered the syndrome to be applicable in academic contexts too, as students experience similar reasons for stress as workers (Balogun, Helgemoe, Pellegrini, & Hoeberlein, 1996; Gold, Bachelor, & Michael, 1989; Rahmati, 2015). The current study therefore uses burnout to investigate whether different aspects of online communication about mental health influence self-diagnosis.

2.2.2. Intention to act

Apart from self-diagnosis, the current study also investigated to what extent the information in the Instagram post would lead to (intended) behaviour. Being diagnosed, or diagnosing oneself, with an illness, could lead to an increased intention to seek help, for instance in form of treatment or guidance from others. Previous research has found that stigma hinders the intention to seek help. People are afraid of negative reactions of others towards help-seeking and reported expecting embarrassment (Barney, Griffiths, Jorm, & Christensen, 2006). Others seem to fear negative reactions from professionals, most commonly from general practitioners when seeking help for depression (Barney, Griffiths, Jorm, & Christensen, 2006). Schomerus, Matschinger and Angermeyer (2009) also determined self-stigmatization as an additional determinant that decreases the willingness to seek help, referring to applying stigma that is observed from others to oneself. Furthermore, the intention to seek help is influenced by the perceived severity and the consequences of a symptom (Cameron, Leventhal, & Leventhal, 1993).

Another action that readers of burnout messages or mental health messages online could undertake is sharing the information with others. Sharing is one of the key features of many social networking sites (Ma & Chan, 2014) and therefore needs to be considered, as the current study uses Instagram as its context. It is possible that upon reading a message about burnout people would like to

spread awareness and help their friends, regardless of whether they perceive themselves as having burnout or not. The current study operationalized intention to act through measuring the intention to seek help as well as the intention to share the information. There seem to be no studies to date that have measured the intention to act based on characteristics of influencer messages. Thus, the current study aimed to fill this gap. These characteristics are elaborated on in the following sections and were chosen based on typical Instagram posts that exist in reality.

2.3. Message characteristics

2.3.1. Directness of symptom description

One aspect of mental health messages is the manner in which a mental illness or disorder is described. Senders of messages can choose to include the name of an illness or not, which the current study calls the directness of symptom description. Both the direct and the indirect manner have their advantages and disadvantages. Especially adolescents struggle with the mental illness label, as research with depressed subjects has revealed, since their self-perception is negatively impacted (Wisdom & Green, 2004). Labels act as a variable to categorize people into different groups, therefore making people with mental disorders feel differentiated (Corrigan, 2007). These feelings are often so strong that the mental health label becomes a part of people's identity (Link & Phelan, 2001), making it harder for them to be optimistic about improving their mental state in the future (Wisdom & Green, 2004). Receiving a specific diagnosis strengthens these feelings (Link & Phelan, 2001). The fear of labels, categorization and stigma by peers hinders (young) people from seeking help (Boldero & Fallon, 1995).

However, a direct description could also have benefits for the recipient of a message regarding this topic. A direct description of burnout could help people to specifically match a label to their symptoms, making them realize that it is a serious health issue that might even require treatment. Previous research has indeed found that a specific diagnosis can provide a sense of control over one's health situation, reduce uncertainty and guide people in finding treatments for recovery (Hayne, 2003). While the indirect label stress would apply to more people, as stress is a common feeling, it lacks the urgency and certainty that the illness label possesses. To investigate the effect of the directness of

burnout descriptions in influencer messages on Instagram, the following hypothesis has been formulated:

H1: A direct description of burnout in an influencer mental health message is more likely to affect a) self-diagnosis and b) the intention to act, compared to an indirect burnout description.

2.3.2. Situational context

In addition to the directness of a burnout description, the overall situational context must be considered. The current study differentiated between a personal context, where a person in an online post described his/her own experiences with burnout, similar to an exemplar (Hoeken, Hornikx, & Hustinx, 2012), and a factual context, that was not connected to the sender of the message and relied on facts about burnout in society.

Within health contexts, personal stories are considered valuable methods to increase understanding of experiences with an illness, the consequences of an illness and the impact it might have on the everyday life (Hyden, 1997; Bury, 2001; Bekker et al., 2013). The value of these stories largely stems from the emotional and social context they provide and that purely informational methods usually lack (Greenhalgh & Hurwitz, 1999). Especially stories told from a first-person perspective have been found to be effective persuasive tools, as these stories are perceived as more relatable (Winterbottom, Bekker, Conner, & Mooney, 2008). Additionally, there is evidence that indicates a positive effect of personal stories on memory, making the information more salient and easier to process, and motivating the receiver of the message to process the information (Bekker et al., 2013).

Equally, however, there is concern that personal stories distract from focussing on the key information, as the receiver of the message is using much cognitive capacity to process the credibility of the sender and affective, social or temporal references in the story (Schank & Berman, 2002; Winterbottom, Bekker, Conner, & Mooney, 2008; Bekker et al., 2013). Furthermore, using an exemplar or a personal story in a message leads to varying reactions from the receivers. Since the targeted audience varies in background, values and previous experience, the responses to a personal

story will be unpredictable, as some people might relate more to the person in the story while others cannot find a connection (Bekker et al., 2013).

Despite these concerns regarding the effectiveness of personal stories, there are numerous studies that find valuable advantages for personal stories in health contexts (Hyden, 1997; Bury, 2001; Bekker et al., 2013), which is the context that the current study uses as well. Furthermore, findings by Gibson and Zillmann (1994) suggest that, compared to factual information, for instance statistics from scientific studies, personal stories are perceived as more persuasive. The current study uses these findings for the formulation of another set of hypotheses. Additionally, as this study uses the social media platform Instagram with an influencer as the sender of the message, it can be argued that the context might be personal by default. There seem to be no previous studies that have investigated the difference between personal and factual contexts concerning self-diagnosis and the intention to act. To this end, the following hypothesis has been formulated:

H2: A personal context of an influencer mental health message about burnout is more likely to affect a) burnout self-diagnosis and b) the intention to act, compared to a factual context.

2.3.3. Call to action

Calls to action, usually containing imperatives, are commonly used to persuade an audience to act (Toolan, 1988; Myers, 1994; Gärtner, 2018). Especially in advertising, imperatives are used to make the target audience purchase a product or service (Toolan, 1988; Myers, 1994). However, calls to action can have other objectives as well. Myers (1994) points out that these types of sentences create a relationship between the sender of the message and the receiver, as it seems like the sender is communicating directly to the audience. This can be perceived as more intimate and be more persuasive (Toolan, 1988). However, calls to action can backfire. As Gärtner (2018) points out, the imperative form of many calls to action restricts the target audience in their independent decision-making, which is why many recipients of such messages react with resistance and deliberately intend to not perform the desired behaviour. Especially in advertising, consumers become doubtful of messages and are less likely to form positive attitudes towards a product, service or brand when they

feel like an effort is made to persuade them by forcing an opinion or behaviour upon them (O'Keefe, 2002). Hence, calls to action must be carefully constructed to prevent this reaction.

Adding a call to action that contains specific actions that a reader can take away from reading a message can effectively increase his/her ability to perform future behaviours concerning the content of the message. This is called self-efficacy, which, according to the Integrative Model of Behavioral Prediction by Fishbein and Ajzen (2003), is a determinant for behavioural intentions and ultimately behaviour. However, calls to action are not generally effective. A strong determinant for persuasive messages is whether people felt addressed by and involved with the topic of the message (Jansen & Janssen, 2005). This can be based on demographic characteristics like age, nationality or income, as well as previous experiences, interests and values (Hoeken, Hornikx, & Hustinx, 2012). Previous research has also found conflicting results of addressing the receiver of a message directly, for example by using 'you', as it has been found to affect the attractiveness of a text both positively and negatively (Hoeken, Hornikx, & Hustinx, 2012).

Previous research has acknowledged the effectiveness of calls to action. Despite some concerns regarding this effectiveness, the current study has taken on the views of Toolan (1988) and Myers (1994), who describe calls to action in the form of imperatives as persuasive tools. Another set of hypotheses is advanced:

H3: The presence of a call to action in an influencer mental health message about burnout is more likely to affect a) burnout self-diagnosis and b) the intention to act, compared to when no call to action is present.

2.4. Interaction effects of directness, situational context and call to action

As established in the previous sections, the current study investigates whether the influencer message characteristics directness, situational context and the presence of a call to action directly influence self-diagnosis and the intention to act. Based on previous research, the previous sections have hypothesized that the direct description of burnout, the personal context and the presence of a call to action would lead to higher levels of self-diagnosis and an intention to act, compared to an indirect

burnout description, a factual context and no call to action. However, simultaneously, it is possible that there will be interaction effects between these aspects, meaning that a combination of two or more of them lead to a strengthened effect on the response variables.

When directness is paired with a call to action, it could elevate the urgency that the direct label potentially possesses, as a reader of a post that contains both characteristics would clearly see that burnout requires treatment. The following hypothesis has been formulated:

H4: In an influencer mental health message about burnout, a direct burnout description and a call to action have an interaction effect on a) self-diagnosis and b) the intention to act.

Directness could also have an interaction effect with the situational context. Greenhalgh and Hurwitz (1999) have identified the emotionality of personal stories as one of the key reasons why these stories, especially when told from a first-person perspective (Winterbottom, Bekker, Conner, & Mooney, 2008), are so effective, for instance as persuasion tools. When combined with the direct description of burnout, a personal story could be perceived as more impactful and dramatic, which is why an effect on self-diagnosis and the intention to act is likely. The following hypothesis has been formulated:

H5: In an influencer mental health message about burnout, a direct burnout description and a personal context have an interaction effect on a) self-diagnosis and b) the intention to act.

Furthermore, an interaction between the situational context and the call to action is likely. This is based on the ability of these factors to connect the sender of the message with the recipient. A call to action has been found to be perceived as more intimate as the sender of a message directly communicates with the recipient (Toolan, 1988; Myers, 1994). Similarly, a personal context is often considered relatable due to its degree of emotionality (Greenhalgh & Hurwitz, 1999) which lets the recipient of the message connect easily to the sender (Bekker et al., 2013). Since an interaction effect between these two factors is likely, the following hypothesis has been formulated:

H6: In an influencer mental health message about burnout, a personal context and a call to action have an interaction effect on a) self-diagnosis and b) the intention to act.

Based on these previous assumptions, a final hypothesis regarding interaction effects has been formulated, which considers a combination of all three factors:

H7: In an influencer mental health message about burnout, a direct burnout description, a personal context and a call to action have an interaction effect on a) self-diagnosis and b) the intention to act.

2.5. Mediation effects of attitudes towards the message & identification with the influencer

Apart from potential direct effects of the message characteristics directness of burnout description, the situational context and the call to action, it is necessary to measure the relation of the reader with the message and the message content, as those could have considerable influence on self-diagnosis and the intention to act.

According to the Theory of Planned Behaviour by Icek Ajzen (1991), attitudes are one of the key determinants for behavioural intentions and eventually the behaviour itself. The current research differentiates between two types of attitudes towards the message, one based on liking and the other based on credibility. Liking, either based on physical attraction or based on sympathy, character traits, interests or other aspects, has been shown to make a source seem more persuasive, thus being more likely to lead to the desired behaviour (Hoeken, Hornikx, & Hustinx, 2012). A source that is perceived as credible, is more persuasive than sources that are not credible (Petty, Cacioppo, & Goldman, 1981; Chaiken, 1980; Wilson & Sherrell, 1993). Credible sources are both reliable and competent, with reliability referring to the truthfulness of the communicated information and the competence referring to the source's background as a justification to be the communicator of information, for example a doctor explaining medical information (Hoeken, Hornikx, & Hustinx, 2012). Credibility plays a crucial role in marketing and advertising, but also in the influencer context that the current study utilizes. Previous research has found that influencers and their messages are perceived as credible and trustworthy by their followers, due to the seemingly close distance that is bridged through engagement

and personal interaction between audience and influencer (Rabach, 2018). As both liking and the perceived credibility can have influence on how a message is perceived and what behaviour is the result of this process, the liking and credibility attitudes were operated as mediators in the current study. The following hypotheses have been formulated:

H8: The liking attitude towards an influencer burnout message mediates the effects of message characteristics on a) self-diagnosis and b) the intention to act.

H9: The credibility attitude towards an influencer burnout message mediates the effects of message characteristics on a) self-diagnosis and b) the intention to act.

The other relational factor between the audience and the message that has been considered in the current study, is identification, a concept that is widely acknowledged in research about narratives and storytelling (Cohen, 2001). Identification refers to the adoption of a character's perception, by replacing the own "personal identity and role as audience member with the identity and role of the character within the text" (Cohen, 2001, pp. 250-251). This process is often enhanced through the use of personal pronouns such as "I" or words referring to the environment, such as "here", that refer to aspects of a message or narrative that are related to that character and his/her surroundings instead of the reader's environment (Segal, 1995). It is possible that a higher level of identification is more likely to lead to self-diagnosis, as the influencer's perspective is taken on and potentially reflected in the audience's behaviour. Thus, the current study has taken identification into consideration as the third mediator. The following hypothesis has been formulated:

H10: Identification with an influencer as the sender of a burnout message mediates the effects of message characteristics on a) self-diagnosis and b) the intention to act.

2.6. Covariates: Trust in Internet and Instagram

According to Marshall McLuhan (1964), "the medium is the message", suggesting that the channel that is used to communicate a message also communicates certain information and influences how the

message is perceived by the recipient. Sources that are not perceived as trustworthy or credible, are less likely to lead to certain behaviour (Wilson & Sherrell, 1993). Similar to the attitude towards the message, there could be existing attitudes towards the media that are used to send the message, which could potentially influence whether people self-diagnose themselves and whether they intend to act. The current study differentiated the Internet in general and the social media site Instagram as two media. The Internet was considered as it is increasingly used as a source for health information. Trust in Instagram, as the specific medium that the experimental stimuli were set in, had to be considered, as Instagram is less common as a source of information but rather as an entertainment medium (Alhabash & Ma, 2017). Trust has many definitions in the literature but it is most commonly associated with an entity being perceived as competent, truthful, secure and dependable (Grandison & Sloman, 2000). In the light of the current study, this means that Instagram and the Internet are only trusted if these attributes are perceived as applicable in the context of mental health messages. As trust in the source is independent from the message characteristics and could influence self-diagnosis and the intention to act directly, trust in the Internet and trust in Instagram were considered as covariates in the current study. With the addition of the covariates, all variables of the current experimental study have been defined. The corresponding research model is displayed in Figure 1.

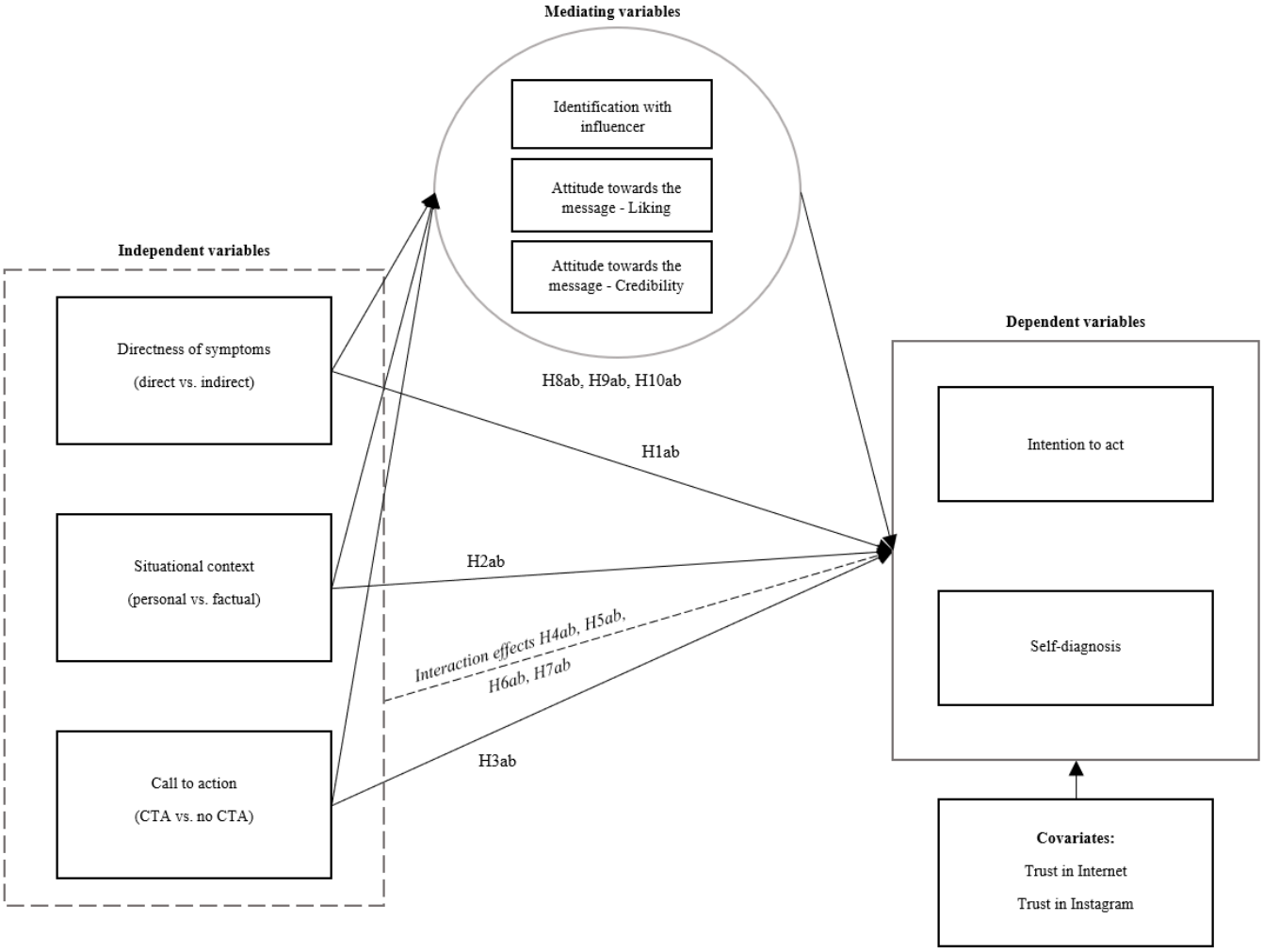

Figure 1. Research model of experimental study

3. Method

3.1. Research design

This study used a 2x2x2 (Symptoms of mental illness direct/indirect x situational context personal/factual x call to action yes/no) between-subject design.

3.2. Stimulus materials

In order to measure the effect of online communication variables on mental health self-diagnosis, a fictional online post by the fictional influencer "Leah Wilson" from the social media platform Instagram was used. The posts were developed through a series of pre-tests.

Pre-test

In order to measure whether the manipulations of the variables were distinct enough for the experimental study, a pre-test of the materials was conducted. Sixteen versions of the material were created: eight posts had a female influencer and eight had a male influencer (see Appendix 1), to investigate whether the gender of the displayed person had an effect on the variables. Furthermore, the three variables directness of burnout, situational context and call to action were manipulated. Directness was manipulated by either using the label burnout (direct) or by using stress as the label for the described symptoms (indirect). Within the situational context variable, the caption was either told from the influencer's perspective by using words like "I" and telling a personal story, or by referring to the results of scientific research that is not related to the influencer's situation (factual). The call to action contained several actions for people who perceive themselves to be in a similar situation as the one described in the post. This call to action was either included or omitted from the post.

The pre-test was performed by means of a short online questionnaire that was sent to a group of 23 respondents. Every respondent saw four posts, which were randomly displayed, and had to fill in a short questionnaire after each post. Incomplete responses were omitted; ultimately, 73 responses were used for statistical analyses. The variables popularity, realisticness, the personalness and factualness were measured by means of one item each on 5-point Likert scales (1 = completely disagree; 5 = completely agree). The directness was measured by asking the respondents an open

question to identify the mental disorder described in the post. Directness, the call to action, the number of followers, likes and comments, and the influencer's age were also measured by means of open questions, that required the participants to recall or estimate information based on the observed post. The level of recollection of the number of followers, likes and comments was measured to investigate whether participants actively observe this information when reading an Instagram post and to be certain that the evaluation of popularity and realisticness was related to these numbers. The pre-test questionnaire and materials can be found in Appendix 1.

Pre-test results

Directness of burnout description

A chi-square test revealed a significant relation between the directness of burnout and the ability to identify the mental disorder correctly (χ^2 (1) = 4.83, p = .028). When burnout was directly mentioned, relatively more participants identified it correctly (62.8%) and relatively fewer participants identified it incorrectly (37.2%), compared to when burnout was not directly mentioned. When burnout was indirectly mentioned, relatively less often was burnout identified correctly (36.7%) and relatively more often was it identified incorrectly (63.3%). For the final version of the materials, the directness has therefore not been increased more, as the pre-test results regarding directness were deemed acceptable for the scope of this study.

Situational context

In the initial pre-test, the personal post (M = 3.67; SD = 1.28) was not found to be more personal than the factual post (M = 3.44; SD = 1.24; t (71) = -.76, p = .449) and neither was the factual post (M = 3.62; SD = 0.99) more factual than the personal post (M = 3.21; SD = 1.28; t (71) = 1.53; p = .132). Since the difference between the personal context and the factual context was not found to be significant, the materials were revised to presumably make that difference clearer and another quantitative questionnaire was sent out to 15 people. The personal version referred to the influencer's story and how she would like to share her own experiences in the post. After the revision, the factual version contained more specific and detailed results of scientific studies. The revised versions can be

found in Appendix 1. With the made changes, the personal post (M = 4.57; SD = 0.79) was found to be significantly more personal than the factual post (M = 2.12; SD =1; t (13) = -5.24, $p < 0.01$). Additionally, the factual post (M = 4.25; SD = 0.89) was found to be significantly more factual than the personal post (M = 2; SD = 1; t (13) = 4.62, $p < 0.01$).

Call to action

Respondents were significantly more aware of what actions they could undertake if they had a similar mental state as the person in the post when the message contained a call to action (M = 3.46; SD = 1.27), compared to when there was no such call to action (M = 1.97; SD = 1; t (69.1) = 5.72, $p < .001$). For the final materials, the call to action that was used in the pre-test has been used.

Influencer age

Both the male influencer (M = 25.13; SD = 3.27) and the female influencer (M = 24.9; SD = 3.35) were estimated to be around 25 years old. As the estimated ages did not differ significantly (t (70) = 0.28, p = .775) and both fit within the age range of the primary Instagram user group, which is younger than 34 (Clement, 2019), both the male and the female influencer would be suitable for the final materials.

Popularity and realisticness

There was no significant difference between the male and female posts regarding popularity of the posts, as both the male version (M = 4.03; SD = 0.82) and the female version (M = 4.12; SD = 0.81; t (71) = .47, p = .639) were considered evenly popular. The same was the case for the realisticness of the posts. The difference regarding realisticness of the male (M = 4.19; SD = 1.01) and female version (M = 4.22; SD = 0.94) of the post was not significant (t (71) = 0.14, p = .893), but the means indicated a high realisticness for both versions. Although this means that both versions would have been acceptable for use in the final experiment, the female version was chosen. This is based on the fact that the majority of Instagram users are female (Clement, 2019). The situational context was also not found to have an influence on the realisticness, as the personal (M = 4.13; SD = 1) and the factual version (M

= 4.29; *SD* = 1) were found to be equally realistic (*t* (71) = 0.71, *p* = .483). Additional analyses of variance also confirmed that the sixteen conditions did not differ in realisticness and popularity when comparing them with the independent variables directness, situational context and call to actions as factors.

Number of followers, likes and comments

Across all posts, 59% of respondents could correctly name the number of followers the person in the post had. Furthermore, 75% remembered that the post had received around 5000 likes. Regarding the number of comments, 71.2% correctly estimated it to be around 80. This indicates that, overall, the number of followers, likes and comments were well-remembered, thus making it more likely that the posts were thoroughly read and that the results regarding the popularity and realisticness were valid.

Qualitative pre-test

In addition to the second quantitative pre-test, four qualitative interviews were conducted, based on the adapted materials that were used in the second pre-test (see Appendix 1). The respondents were German (*N* = 3) and Australian (*N* = 1) (50% female; age: 20-49) and all of them either use social media, especially Instagram, occasionally or frequently. Almost all of them found the posts to be realistic and reported that they could imagine seeing this type of posts on social media. One respondent found it questionable whether an influencer would openly share their mental health issues online, but overall the participants thought that the posts matched the style and content that is frequently seen on Instagram. All the respondents could clearly identify the difference between the two posts as one being factual and one being personal. The personal post was described as being relatable and as having the potential to inspire people to open up about their own mental health, while the factual was described as being more impactful to spread awareness, as even people who might not know the influencer behind the post can use the information. The difference and purpose of the two posts was eventually revealed and the follow-up question of how the posts could be further improved, was asked. All four respondents found the text to be well-targeted at the intended purpose of the post, both in terms of length and content. However, one person noted that the photo of the influencer might

not fit with the factual post and suggested to use a more general picture, for example of a clinic or medicine. However, as the quantitative pre-test had already revealed a significant difference between the personal and factual posts, no further changes were made based on this comment.

Based on the pre-test, the final materials were created by combining the manipulations of the call to action and the directness of burnout from the first pre-test, with the revised manipulation of the situational context from the second pre-test. Due to the fit of age and the fit with the majority of Instagram users, the female version was chosen over the male version, thus resulting in a total of eight posts that were utilized for the experimental study (see Appendix 2). An example version of one of the eight stimuli is displayed in Figure 1.

Figure 1. Example of final material (manipulations: direct, personal, call to action)

3.3. Procedure

The current study made use of convenience sampling and snowball sampling. An online questionnaire that was created in Qualtrics was distributed amongst the participants via social media (Facebook, Instagram, LinkedIn) and the messenger service WhatsApp. The language of the questionnaire was English.

The experiment started with an opening message that stated the general purpose of the experiment, without naming self-diagnosis, the intention to act and the independent variables. Simultaneously, the opening message functioned as a consent form, stating that the participants could stop the experiment at any time and that participation was fully anonymous. Before the actual experiment, the respondents were required to fill in a short test to filter out subjects who are sensitive towards the topic of mental health or are mentally unstable. Three sets of five questions each mixed general health statements, for instance about diet or fitness, with burnout-related statements. Four statements were identified to be indicators of a potential or existing mental disorder. If a respondent answered “Somewhat agree” (5), “Agree” (6) or “Strongly agree” (7) on the 7-point Likert scale on all four statements, they were filtered out. Initially, if a participant answered “Neither agree or disagree” (3) or any of the other three scale points, they were also filtered out. After the first 30 respondents’ data had been collected, this was changed, as the neutral answer was not considered a strong indicator for a (potential) mental or stress disorder. The thirty respondents’ data was included in the data analysis nevertheless. Subjects who did not pass the test, received a message, thanking them for their participation and containing contact details of the researcher. The aim of the experiment or the fact that the respondents were filtered out was not mentioned. This first part of the questionnaire also contained questions about the trust in the Internet as an information source, trust in Instagram and Instagram usage, and the demographics. This structure was chosen deliberately to disguise the filter as a full experiment and to protect potentially high-risk participants. The participants who passed the filter test proceeded with the experiment. They first read a short text informing them about the influencer whose post they were about to see and that they should read the post carefully before proceeding. Afterwards, they saw an Instagram post where the fictional influencer Leah Wilson described burnout, either directly by naming the illness or by indirectly describing stress symptoms, as

well as in a personal or general way, and with or without a call to action. Subjects could take as much time as they needed to examine the post, before starting with the questionnaire. Once the participants had clicked further to proceed, they could not go back to the Instagram post. In the questionnaire, the respondents were asked about their attitude towards the post (liking and credibility), their level of self-diagnosis, their intention to share the information, their intention to seek help themselves and their level of identification with the influencer. Finally, the questionnaire controlled the independent variables, similar to the pre-test, by measuring how personal or factual the post was, how realistic the respondents perceived it to be, whether they could remember the mental disorder and the actions for people who perceive themselves in a similar situation as the person in the post. The experiment was closed by a debriefing that explained the purpose of the experiment and gave participants the chance to contact the researcher in case they did not wish for their data to be used in the analysis in hindsight. The questionnaire can be found in Appendix 3.

The experiment, including the filtering test, the fictional Instagram post and the completion of the questionnaire, was estimated to take approximately 15 minutes. The data was collected in September 2019 and was analysed using SPSS Statistics 23.

3.4. Instruments

3.4.1. Validity and reliability

A principal component analysis with varimax rotation revealed a seven-factor solution, explaining 57.44% of the variance. The seven factors were intention to act, attitude towards the post (credibility), attitude towards the post (liking), self-diagnosis, identification with the influencer, trust in Instagram and trust in the Internet. All items that were used for the statistical analysis, the results of the factor analysis as well as their reliability are displayed in Table 1.

Table 1. Seven-factor solution and factor items, including correlations and reliability

	Component						
	1	2	3	4	5	6	7
Intention to act – After reading the post, I intend to share the information with others.	.86						
Intention to act – After reading the post, I intend to spread the post's content among more people who might benefit from it.	.82						
Intention to act – After reading the post, I intend to tell my friends and family about the information in the post.	.82						
Intention to act – After reading the post, I intend to seek help from others.	.7						
Intention to act – After reading the post, I have realised that I cannot deal with my health situation by myself any longer.	.67						
Intention to act – After reading the post, I intend to contact people I know or professionals for support.	.71						
Attitude towards the post (credibility) – I found the post: Accurate:Inaccurate		.73					
Attitude towards the post (credibility) – False:True		.71					
Attitude towards the post (credibility) – Authentic:Inauthentic		.61					
Attitude towards the post (credibility) – Believable:Implausible		.79					
Attitude towards the post (credibility) – Unreliable:Reliable		.66					
Attitude towards the post (credibility) – Trustworthy:Untrustworthy		.73					
Attitude towards the post (liking) – Interesting:Uninteresting			.69				
Attitude towards the post (liking) – Appealing:Unappealing			.74				
Attitude towards the post (liking) – Boring:Exciting			.58				
Attitude towards the post (liking) – Enjoyable:Unenjoyable			.78				
Attitude towards the post (liking) – Lively:Dull			.77				
Self-diagnosis – While reading the post, I kept thinking about my own health.				.67			
Self-diagnosis – While reading the post, I could recognize some of the described symptoms in myself.				.86			
Self-diagnosis – While reading the post, I could relate my personal health situation to what the influencer wrote about.				.84			
Self-diagnosis – The content of the post reflects my own health situation.				.72			
Self-diagnosis – While reading, I got worried about my own state of health.				.57			
Identification – While reading the post, I could imagine how the influencer is feeling.					.81		
Identification – While reading the post, I felt connected to the influencer.					.79		
Identification – At some points while reading, I felt like I was looking inside the influencer's mind.					.72		
Identification – While reading the post, I was feeling the same emotions as the influencer.					.66		
Identification – While reading the post, I could position myself in the situation of the influencer.					.74		
Trust in Instagram – Instagram is a valuable source for information.						.71	
Trust in Instagram – I trust information on Instagram to be true.						.82	
Trust in Instagram – Overall, I find information on Instagram to be misleading.						.74	
Trust in Instagram – My general opinion of Instagram is unfavourable.						.68	
Trust in Internet – The Internet is a valuable source for information							.78
Trust in Internet – The Internet is an essential tool for finding information.							.79
Trust in Internet – Overall, I consider the Internet to be a good thing.							.70
% of Explained Variance	11.29	8.81	8.79	8.34	8.15	6.55	5.51
Eigenvalue	11.64	4.34	2.91	2.23	1.85	1.67	1.46
Cronbach's Alpha	.92	.89	.86	.87	.89	.78	.74

Note: Coefficients <.50 were suppressed; the item "Reading the post helped me to diagnose my own health situation" was excluded due to significant cross-loading on components 1 and 4

3.4.2. Measures

a) Dependent variables

Self-diagnosis. The dependent variable self-diagnosis was measured using five items on a 7-point Likert scale (1 = strongly disagree; 7 = strongly agree). A sample item for measuring self-diagnosis was "While reading the post, I recognized some of the described symptoms in myself". The reliability for self-diagnosis was good ($\alpha = .87$).

Intention to act. The intention to act differentiated between the intention to share information and the intention to seek help, which were measured with three items each on a 7-point Likert scale (1 = strongly disagree; 7 = strongly agree). An example item for the intention to share the information was "After reading the post, I intend to share the information with others". A sample item for measuring the intention to seek help was "After reading the post, I intend to seek help from others". The reliability for the intention to act was excellent (α = .92).

b) Mediators

Attitude towards the message – Liking. Liking was measured by means of five items on 7-point semantic differentials scales (e.g. interesting – uninteresting, appealing – unappealing), based on Matthes, Schemer and Wirth (2007) and Appelman and Sundar (2016). The reliability for the liking of the message was found to be good (α = .86).

Attitude towards the message – Credibility. The credibility of the message was measured through six items on 7-point semantic differentials scales (e.g. accurate – inaccurate, unreliable – reliable), based on Appelman and Sundar (2016). The reliability for the credibility of the message was found to be good (α = .89).

Identification. The mediator identification with the influencer was measured on a 7-point Likert scale (1 = strongly disagree; 7 = strongly agree) comprising five items which were adapted from Cohen (2001). An example for one of the items was "While reading the post, I could position myself in the situation of the influencer". The reliability of the identification scale was good (α = .89).

c) Covariates

Trust in Internet. The covariate trust in the Internet was measured using four items on a 7-point Likert scale (1 = strongly disagree; 7 = strongly agree), adapted from Pollay and Mittal (1993) and Obermiller and Spangenberg (1998). A sample item for trust in the Internet was "The Internet is a valuable source for information". After the elimination of one of the four items, the reliability for trust in the Internet was acceptable (α = .74).

Trust in Instagram. The covariate trust in Instagram was measured by means of a 7-point Likert scale (1 = strongly disagree; 7 = strongly agree), comprising four items which were adapted from Pollay and Mittal (1993) and Obermiller and Spangenberg (1998). One sample item was "I trust information that I find on Instagram to be true". The reliability for trust in Instagram was acceptable (α = .78).

d) Filter

The filter test was designed to filter out any respondents who might be at risk for mental health issues related to stress and who should not be exposed to content that might trigger negative or potentially dangerous behaviour in them. The core part of the filter were three sets of five questions each, which mixed general health related items (e.g. "I eat healthily on a regular basis") and stress- and burnout-related items, based on the Maslach Burnout Inventory (Maslach, Jackson, & Leiter, 1996) and the Copenhagen Burnout Inventory (Kristensen, Borritz, Villadsen, & Christensen, 2005). The four items that were used to filter out high-risk respondents were "I feel emotionally drained from my job/study/occupation", "I feel burnt out from my work/studies", "I feel used up at the end of a workday" and "I think I can't take it anymore".

e) Demographics

The questionnaire also contained questions about the respondents' demographics, namely gender, age, nationality, highest obtained educational degree, current occupation and marital status. Additionally, the participants were asked to indicate whether they have an Instagram account and how frequently they browse the social networking platform.

3.5. Participants

A total of 319 respondents consented to participating in the current study. Due to their results in the filtering test indicating a higher risk for burnout, 74 respondents were deemed unfit to participate in the experiment, thus resulting in a total of 245 respondents (age: 15-60, M = 25.55, SD = 7.64; 58.8% female, 40.8% male, 0.4% other) who participated in the experiment and whose data was analysed in

the current study. People from a total of 48 countries participated, the most common nationalities being German (24.5%), Dutch (15.9%), from the United States of America (10.2%) and from the United Kingdom of Great Britain and Northern Ireland (6.5%; see Appendix 4 for full overview of participants' nationalities). The majority of participants were students (64.1%), with full-time employees being second most frequent (21.2%). The most common educational degrees among the research participants were Bachelor's degrees (43.3%), secondary education degrees (30.6%) and Master's degrees (23.7%). Regarding their marital status, the majority of participants were either single (49.4%) or in a relationship (40.4%). With 81.6%, the majority of the participants stated to have an Instagram account and more than two thirds of them indicated to use that social media platform several times per day (53.8%) or at least daily (25.6%). A full overview of the demographics of the research participants is displayed in Table 2.

With regard to the distribution of the participants on the stimuli, a one-way analysis of variance revealed no relation between age and the material version (F (7, 237) = 0.36, p = .924). Furthermore, several chi-square tests showed that the research subjects were equally distributed based on gender (χ^2 (14) = 9.36, p = .807), occupation (χ^2 (28) = 24.1, p = .676), education (χ^2 (28) = 22.24, p = .770), marital status (χ^2 (21) = 19, p = .585) and nationality (χ^2 (329) = 349.29, p = .212) Additionally, there was no relation between the material version and whether participants had an Instagram account or not (χ^2 (7) = 4.8, p = .685), or between the material and the frequency of Instagram usage (F (7, 191) = 3.61, p = .084).

Table 2. The demographics (age, gender, education, occupation, marital status, Instagram usage and usage frequency) of research participants (N = 245)

	Total		**M1**		**M2**		**M3**		**M4**		**M5**		**M6**		**M7**		**M8**	
			Dire Pers CTA		**Indir Pers CTA**		**Dir Fact CTA**		**Indir Fact CTA**		**Dir Pers nCTA**		**Indir Pers nCTA**		**Dir Fact nCTA**		**Indir Fact nCTA**	
	N	**%**	***N***	**%**	***N***	**%**	***N***	**%**	***N***	**%**	***N***	**%**	***N***	**%**	***N***	**%**	***N***	**%**
Gender																		
Male	100	40.8	16	48.5	14	46.7	11	36.7	10	33.3	13	41.9	12	40	11	36.7	13	41.9
Female	144	58.8	17	51.5	16	53.3	19	63.3	19	63.3	18	58.1	18	60	19	63.3	18	58.1
Other	1	0.4	0	0	0	0	0	0	1	3.3	0	0	0	0	0	0	0	0
Education																		
Less than sec. education	2	0.8	1	3.0	0	0	0	0	0	0	0	0	1	3.3	0	0	0	0
Secondary education degree	75	30.6	12	36.4	13	43.3	11	36.7	9	30.0	8	25.8	7	23.3	7	23.3	8	25.8
Bachelor's Degree	106	43.3	13	39.4	9	30.0	13	43.3	13	43.3	15	48.4	12	40.0	14	46.7	17	54.8
Master's Degree	58	23.7	7	21.2	7	23.3	8	20.0	8	26.7	7	22.6	10	33.3	7	23.3	6	19.4
Doctorate Degree	4	1.6	0	0	1	3.3	0	0	0	0	1	3.2	0	0	2	6.7	0	0
Marital Status																		
Single	121	49.4	18	54.5	18	60	11	36.7	14	46.7	16	51.6	17	56.7	13	43.3	14	45.2
In a relationship	99	40.4	11	33.3	10	33.3	14	46.7	10	33.3	12	38.7	11	36.7	15	50	16	51.6
Married	23	9.4	3	9.1	2	6.7	5	16.7	6	20	2	6.5	2	6.7	2	6.7	1	3.2
Divorced	2	0.8	1	3	0	0	0	0	0	0	1	3.2	0	0	0	0	0	0
Widowed	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Occupation																		
Employed full time	52	21.2	8	24.2	4	13.3	7	23.3	6	20	7	22.6	4	13.3	8	26.7	8	25.8
Employed part time	24	9.8	4	12.1	3	10	3	10	2	6.7	2	6.5	1	3.3	6	20	3	9.7
Student	157	64.1	20	60.6	21	70	19	63.3	21	70	20	64.5	21	70	15	50	20	64.5
Unemployed	11	4.5	1	3	1	3.3	1	3.3	1	3.3	2	6.5	4	13.3	1	3.3	0	0
Retired	1	0.4	0	0	1	3.3	0	0	0	0	0	0	0	0	0	0	0	0
Total	245	100%	33	100	30	100	30	100	30	100	31	100	30	100	30	100	31	100
Age (N = 245)																		
Mean (*M*)	25.55		25.06		25.37		26.8		26.47		25.45		24.27		26.1		25.0	
Standard deviation (*SD*)	7.65		8.72		9.13		8.45		7.65		8.16		4.27		7.73		6.45	
Instagram Usage																		
% with an account	81.22		75.76		86.67		90		83.33		77.42		86.67		80		70.97	
Mean frequency of use (*SD* in brackets)*	6.07 (1.43)		6.2 (1.16)		5.92 (1.92)		6 (1.49)		6.4 (0.91)		6.08 (1.35)		5.27 (2.01)		6.38 (0.88)		6.41 (0.85)	

*Note: Dir = Direct, Indir = Indirect, Pers = Personal, Fact = Factual, CTA = call to action, nCTA = no call to action; *measured on a 7-point Likert scale (1 = low, 7 = high)*

4. Results

4.1. Manipulation checks

The statistical analysis included a manipulation check, to investigate whether the manipulations to the materials were significantly different.

a) Directness of burnout description

A chi-square test revealed a significant relation between the directness of burnout and the ability to identify the mental disorder correctly (χ^2 (1) = 28.81, $p < .001$). When burnout was directly mentioned, relatively more participants identified it correctly (54.8%) and relatively fewer participants identified it incorrectly (45.2%), compared to when burnout was not directly mentioned. When burnout was indirectly mentioned, relatively less often was burnout identified correctly (21.5%) and relatively more often was it identified incorrectly (78.5%). Simultaneously, relatively more participants identified burnout correctly when it was directly mentioned (72.3%), compared to when it was indirectly mentioned (27.7%), and fewer respondents identified it incorrectly when it was directly mentioned (37.1%) than when burnout was directly named (62.9%).

b) Situational context – Factual vs. personal

An independent t-test revealed that the factual version of the post ($M = 4.5$, $SD = 1.43$) was significantly more factual than the personal post ($M = 3.01$, $SD = 1.53$; t (243) = 7.88, $p < .001$). Simultaneously, the personal version of the post ($M = 4.94$, $SD = 1.43$) was found to be significantly more personal than the factual version ($M = 3.44$, $SD = 1.69$; t (234.76) = 7.54, $p < .001$).

c) Call to action

A chi-square test revealed a significant relation between the presence of a call to action and the ability to correctly name potential actions that readers who find themselves in a similar situation as the person in the post can undertake (χ^2 (1) = 44.29, p < .001). When a call to action was present, relatively more participants identified the actions correctly (78.9%) than incorrectly (21.1%). The opposite was the

case for when there was no call to action: relatively fewer participants identified the actions correctly (36.9%) and relatively more incorrectly (63.1%). Additionally, relatively more participants identified the actions correctly when a call to action was present (68.3%), compared to when no call to action was included in the post (31.7%). At the same time, relatively more respondents identified the action incorrectly when the post did not include a call to action (74.8%), then when it made mention of potential actions (25.2%).

d) Realisticness

The realisticness of the post was rated somewhat realistic (M = 4.96, SD = 1.37), which was consistent across all variations of the experimental materials (F (7, 237) = 1.16, p = .33).

4.2. Covariates

To identify trust in Instagram and trust in the Internet as covariates, they were tested for correlation with the outcome variables. A positive correlation was found between trust in Instagram and self-diagnosis (r (245) = .31, p < .001). People who perceived Instagram as trustworthy were more likely to self-diagnose themselves, then people with low trust in Instagram. Trust in Instagram also positively correlated with the intention to act (r (245) = .26, p < .001). Trust in Instagram was taken on as a covariate in the current study. No significant correlation could be found between trust in the Internet and self-diagnosis (r (245) = .03, p = .617), nor between trust in the Internet and the intention to act (r (245) = -.06, p = .316); thus, trust in the Internet was not taken on as a covariate in the current study. The means and standard deviations for trust in the Internet and trust in Instagram are displayed in Table 3.

Table 3. Means (M) and standard deviations of trust in the Internet and trust in Instagram

	N	*M*	*SD*
Trust in Internet	245	6.19	0.82
Trust in Instagram	245	3.54	1.11

Note: measured on a 7-point Likert scale (1 = low, 7 = high)

4.3. Effects of burnout message characteristics (H1ab, H2ab, H3ab)

In order to investigate the effects of the directness of burnout description, the situational context and the inclusion of a call to action on self-diagnosis and the intention to act, a two-way multivariate analysis of covariance (MANCOVA) with the covariate trust in Instagram was performed. Additionally, the mediator variables were taken on as dependent variables in the MANCOVA to investigate whether the independent variables had an effect on them. The means and standard deviations of the dependent variable per independent variable are displayed in Table 4.

Table 4. *Means (M) and standard deviations (SD) for self-diagnosis, intention to act, attitude towards the message (credibility), attitude towards the message (liking) and identification for the independent variables directness, situational context and call to action (1 = strongly disagree, 7 = strongly agree)*

	Self-diagnosis	Intention to act	Attitude towards the message (credibility)	Attitude towards the message (liking)	Identification
	M (SD)	*M (SD)*	*M (SD)*	*M (SD)*	*M (SD)*
Directness					
Direct	3.67 (1.39)	2.51 (1.21)	4.74 (1.13)	4.36 (1.20)	3.54 (1.31)
Indirect	3.64 (1.26)	2.48 (1.20)	4.67 (1.09)	3.87 (1.23)	3.62 (1.30)
Situational context					
Personal	3.72 (1.37)	2.62 (1.34)	4.80 (1.14)	4.15 (1.27)	3.82 (1.26)
Factual	3.59 (1.28)	2.37 (1.03)	4.60 (1.08)	4.08 (1.20)	3.33 (1.30)
Call to action					
Yes	3.63 (1.33)	2.60 (1.29)	4.77 (1.06)	4.15 (1.14)	3.59 (1.37)
No	3.68 (1.32)	2.39 (1.10)	4.64 (1.15)	4.08 (1.32)	3.57 (1.24)
Total	***3.66 (1.32)***	***2.50 (1.20)***	***4.70 (1.11)***	***4.12 (1.23)***	***3.58 (1.30)***

An initial Wilks' Lambda test only revealed a significant main effect of directness on the dependent variables as a whole ($\Lambda = .93$; F (5,000) = 3.25, $p = .007$). However, upon observation of the dependent variables separately, directness was found to only have a significant effect on the mediator attitude towards the message, regarding liking (F (1, 236) = 10.91, $p = .001$). Additionally, situational context was found to significantly affect identification (F (1, 236) = 8.69, $p = .004$). The multivariate analysis of covariate could not identify any other significant main effects, as displayed in Table 5, thus not supporting the hypotheses 1ab, 2ab and 3ab.

Table 5. Multivariate test for covariance (GLM / MANCOVA)

Multivariate Tests		*F-value*	*Sig.*
Wilks' Lambda	Directness	3.25	.007
	Situational Context	2.13	.063
	Call to action (CTA)	1.08	.371
	Directness*Situational Context	1.15	.335
	Directness*CTA	3.28	.007
	Situational context*CTA	.74	.595
	Directness*Situational context*CTA	.50	.777

Test of between subject design effects		*F-value*	*Sig.*
Directness	Self-diagnosis	.09	.762
	Intention to act	.10	.750
	Attitude (credibility)	.33	.565
	Attitude (liking)	10.91	.001
	Identification	.17	.684
Situational Context	Self-diagnosis	.55	.458
	Intention to act	2.54	.112
	Attitude (credibility)	1.79	.182
	Attitude (liking)	.08	.782
	Identification	8.69	.004
Call to action	Self-diagnosis	.00	.983
	Intention to act	2.74	.099
	Attitude (credibility)	1.69	.195
	Attitude (liking)	.46	.498
	Identification	.10	.751
Directness*Situational Context	Self-diagnosis	.00	.947
	Intention to act	1.04	.309
	Attitude (credibility)	2.57	.110
	Attitude (liking)	.29	.588
	Identification	.07	.792
Directness*CTA	Self-diagnosis	1.26	.264
	Intention to act	8.45	.004
	Attitude (credibility)	2.54	.112
	Attitude (liking)	3.40	.067
	Identification	.07	.795
Situational Context*CTA	Self-diagnosis	1.50	.221
	Intention to act	.96	.328
	Attitude (credibility)	.84	.361
	Attitude (liking)	.01	.944
	Identification	.424	.516
Directness*Situational context*CTA	Self-diagnosis	.09	.768
	Intention to act	.12	.729
	Attitude (credibility)	1.67	.198
	Attitude (liking)	.28	.598
	Identification	.03	.856

Note: measured on 7-point Likert scale (1 = strongly disagree; 7 = strongly agree)

4.4. Interaction effects (H4ab, H5ab, H6ab, H7ab)

In order to test the hypotheses H4-7, the independent variables were checked for interaction, thrice for two-way interactions (Directness*Situational Context, Directness*CTA, Situational Context*CTA) and once for a three-way interaction (Directness*CTA*Situational Context). The initially performed Wilks' Lambda test only found a significant interaction effect of the presence of a call to action and the directness of burnout description on intention to act ($\Lambda = .93$; F (5,000) = 3.28, $p = .007$). The MANCOVA revealed that this interaction only had an effect on the intention to act (F (1, 236) = 8.45, $p = .004$). The interaction effect of the call to action and the directness of burnout on the intention to act has been visualized in Figure 2.

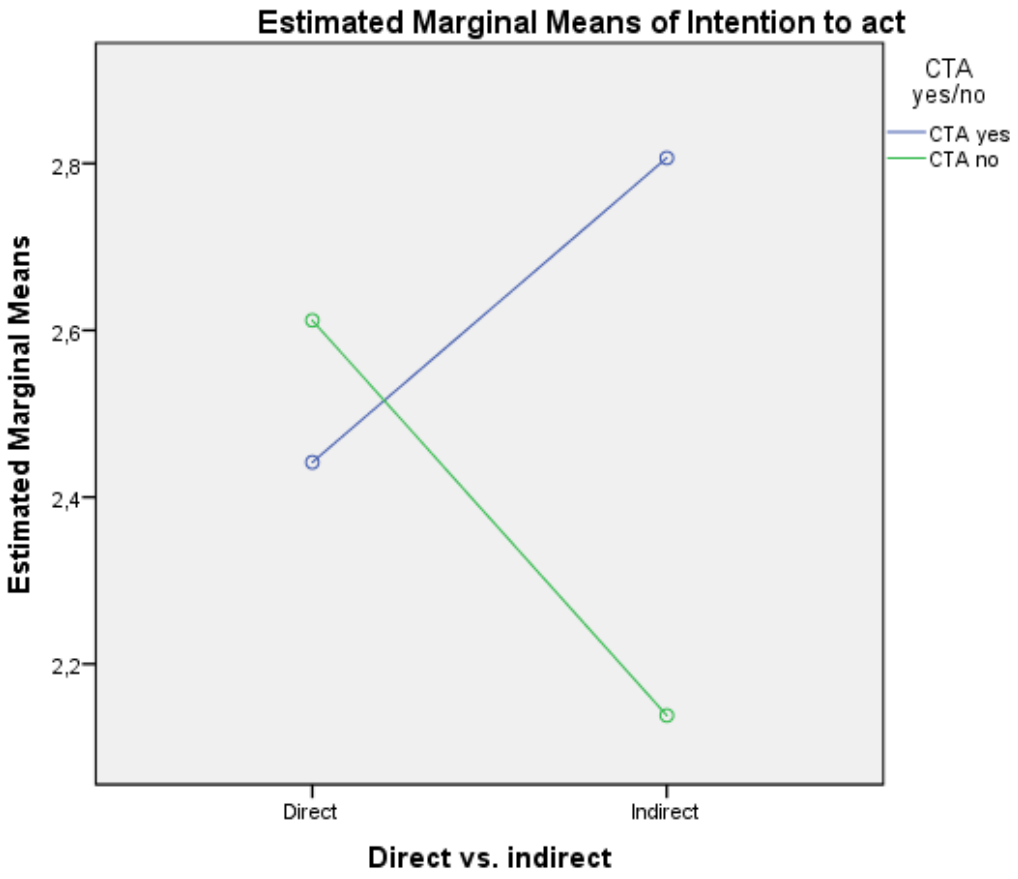

Figure 2. *Estimated marginal means of intention to act for directness of burnout description across call to action (yes/no)**

*Covariate Trust in Instagram is evaluated at the value 3.45

To investigate, where in the interaction the significant differences lie, additional one-way analyses of covariance were performed. It was revealed that when a call to action was not included, the intention to act was higher when burnout was directly described (M = 2.61, SD = 1.18), compared to when burnout was indirectly described (M = 2.18, SD = .98; F (1, 120) = 2.69, p = .104). When a call to action was included, there was no significant effect of directness on the intention to act (F (1, 119) = 6.02, p = .016).

In the Instagram post that described burnout indirectly, the placement of a call to action lead to a higher intention to act (M = 2.79, SD = 1.32) than when no such call to action was included (M = 2.18, SD = .98; F (1, 118) = 10.29, p = .002). When burnout was directly mentioned, the placement of a call to action had no significant effect on the intention to act (F (1, 121) < 1, p = .422). The means per condition for the interaction between the call to action and directness are displayed in Table 6. The findings to not support the hypotheses 4ab, 5ab, 6ab and 7ab.

Table 6. Means (M) and standard deviations (SD) for the interaction effect between directness of burnout description and call to action on the intention to act (1 = low, 7 = high)

		Intention to act	
Directness	**Call to action**	*M*	*SD*
Direct	CTA yes	2.42	1.24
	CTA no	2.61	1.18
Indirect	CTA yes	2.79	1.32
	CTA no	2.18	0.98

4.5. Mediation (H8ab, H9ab, H10ab)

While there was a lack of main effects of directness of burnout, situational context and the presence of a call to action, the MANCOVA found effects on the mediating variables. This was investigated further, also with regard to the potential effects that the mediators might have on the dependent variables self-diagnosis and intention to act. Although some researchers argue that mediation cannot occur without such main effects (e.g. Baron & Kenny, 1987), a mediation analysis was performed nonetheless, by means of the PROCESS macro for SPSS, written by Andrew F. Hayes (2017). The variables identification, attitude towards the message regarding credibility and the attitude towards the message regarding liking of the message were proposed as having a mediating effect between the

independent variables and the dependent variables self-diagnosis and intention to act. The models below display the outcomes of this analysis.

None of the mediation models found the direct effect to be significant, in line with the multivariate analysis of covariance. However, in all of them, the variables attitude towards the message based on liking, attitude towards the message based on credibility, and identification had a significant effect on both dependent variables, self-diagnosis and intention to act. Higher levels of identification and positive attitudes, both credibility and liking, lead to higher levels of self-diagnosis and a stronger intention to act (see mediation models in Appendix 5). Furthermore, the effects of directness on the liking attitude (t (2, 242) = -3.16, p = .002), and situational context on identification (t (2, 242) = -2.94, p = .004) were confirmed by the mediation analysis. Due to the coding of the directness variable, 1 = direct and 2 = indirect, the negative beta of the effect of directness on attitude towards message (liking) indicates that direct posts lead to a more positive attitude towards the message (liking), while the indirect messages were less liked (see Figure 3). As situational context was coded with 1 = personal and 2 = factual, the negative beta indicates that a factual post leads to less identification, while people identify stronger with a personal post (see Figure 4). Overall the hypotheses 8ab, 9ab and 10ab were partially supported.

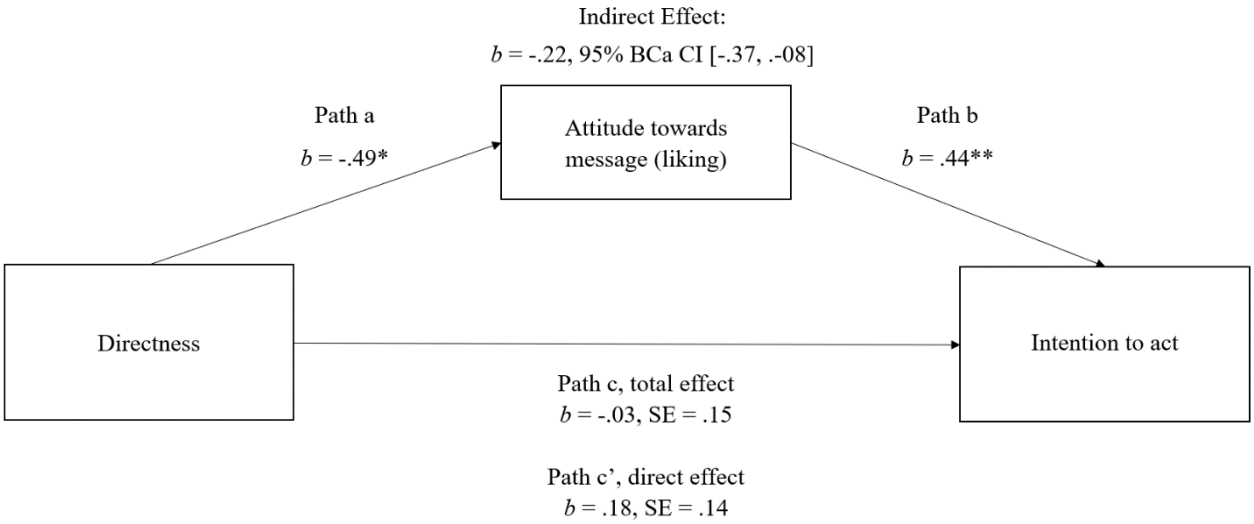

*Figure 3. Mediation model for intention to act, with liking attitude as mediator, * significant*

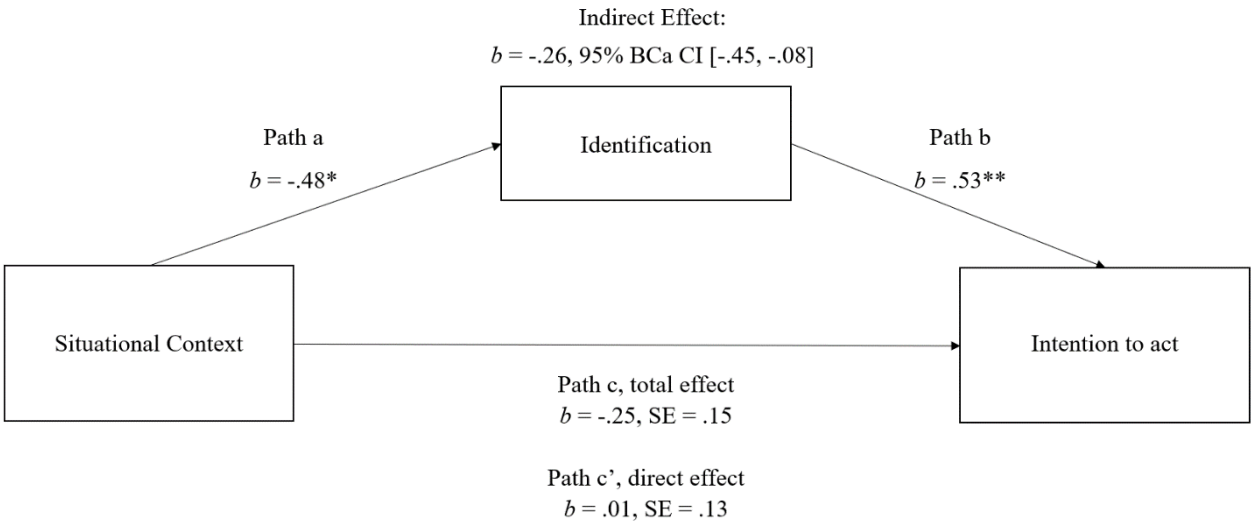

Figure 4. Mediation model for intention to act, with identification as mediator

4.6. Hypotheses overview

Table 7 displays the hypotheses that were tested in the current study and the extent to which they were supported by the findings of the statistical analyses.

Table 7. Overview of results of hypotheses testing

No.	Hypothesis	Result
H1	A direct description of burnout in an influencer mental health message is more likely to affect a) self-diagnosis and b) the intention to act, compared to an indirect burnout description.	a) not supported b) not supported
H2	A personal context of an influencer mental health message about burnout is more likely to affect a) burnout self-diagnosis and b) the intention to act, compared to a factual context.	a) not supported b) not supported
H3	The presence of a call to action in an influencer mental health message about burnout is more likely to affect a) burnout self-diagnosis and b) the intention to act, compared to when no call to action is present.	a) not supported b) not supported
H4	In an influencer mental health message about burnout, a direct burnout description and a call to action have an interaction effect on a) self-diagnosis and b) the intention to act.	a) not supported b) not supported
H5	In an influencer mental health message about burnout, a direct burnout description and a personal context have an interaction effect on a) self-diagnosis and b) the intention to act.	a) not supported b) not supported
H6	In an influencer mental health message about burnout, a personal context and a call to action have an interaction effect on a) self-diagnosis and b) the intention to act.	a) not supported b) not supported
H7	In an influencer mental health message about burnout, a direct burnout description, a personal context and a call to action have an interaction effect on a) self-diagnosis and b) the intention to act.	a) not supported b) not supported
H8	The liking attitude towards an influencer burnout message mediates the effects of message characteristics on a) self-diagnosis and b) the intention to act.	a) partially supported b) partially supported
H9	The credibility attitude towards an influencer burnout message mediates the effects of message characteristics on a) self-diagnosis and b) the intention to act.	a) partially supported b) partially supported
H10	Identification with an influencer as the sender of a burnout message mediates the effects of message characteristics on a) self-diagnosis and b) the intention to act.	a) partially supported b) partially supported

5. Discussion & Conclusion

The current study set out to investigate whether aspects of influencer mental health messages influence the audience's reaction and the perception of their own health, through self-diagnosis and intention to act. The study made use of a 2x2x2 experimental in-between subject design. An Instagram post by a fictional Instagram post was created and manipulated based on the variables directness of burnout description (direct or indirect), situational context (personal or factual) and the presence of a call to action (with or without call to action). Participants were exposed to one of the eight versions of the post and their levels of self-diagnosis and intention to act was measured by means of an online questionnaire.

5.1. Discussion of main effects

There were no main effects of the message characteristics directness, situational context and the call to action on self-diagnosis and the intention to act, which did not support the hypotheses 1, 2 and 3. It appears that the individual message characteristics were not salient enough to impact self-diagnosis and intention to act as direct factors.

Directness did not influence self-diagnosis or the intention to act. It is possible that the depiction of both stress and burnout as a problematic condition that has negative effects on one's health was either way something that negatively influences self-perception, in line with Wisdom and Green (2004), which could mean that people were not willing to apply the post's content to themselves. Alternatively, it is possible that people related neither to the stress label nor to the burnout label and, as a result, did not apply the information from the post to themselves. This suggestion is supported by the low means of identification.

Neither the factual nor the personal post lead to high levels of self-diagnosis and an intention to act. Self-diagnosis is based on applying described symptoms to one's own health situation (Ryan & Wilson, 2008). Since the symptoms of stress/burnout were included across all versions, it seems like the overall situational context did not influence self-diagnosis or the intention to act. Furthermore, the situational context was linked to identification, which was also found to be low and therefore did not lead to self-diagnosis nor an intention to act.

Regarding the call to action, the manipulation check revealed that the respondents read and understood the content of the call to action, but, as the study has shown, the intention to follow these instructions was overall low, thus contradicting Toolan (1988), who found calls to action to influence the intention to act. It is possible that the call to action was not specific enough. The post described that in case a reader recognized the symptoms of burnout or stress, he or she should consult friends, a psychologist or a general practitioner. It would be interesting to investigate whether a more specific referral to a help seeking method, for instance by providing a link to a chatroom with professionals or a number to a help-seeking hotline would have had different results.

Overall, it must be also noted that the means for all dependent variables were low. Not only were there no main effects of the message characteristics, but there was almost no self-diagnosis or intentions to act based on the post. It is possible that this is due to the low trust in Instagram as a source of information, which was identified as a covariate and thus affects self-diagnosis and the intention to act, regardless of the message characteristics. It appears that people do not view Instagram as a trustworthy source of information, like the information provided in the post. That Instagram is traditionally perceived as an entertainment medium, instead of a platform to seek and share information on (Alhabash & Ma, 2017), could be an explanation for this. It is possible that the low trust in Instagram overrides the perception of the message characteristics, thus rendering the experimental manipulations of directness of burnout, the situational context and the presence of a call to action ineffective. Future studies could investigate the role of trust in Instagram in more depth.

Alternatively, it is possible that the low levels of self-diagnosis and the intention to act were due to the fact that only mentally stable people and people who are not overly stressed, were allowed to participate in the study for ethical reasons. While this protects respondents with a potential risk for burnout, it also means that the participant group might not have recognized the described stress and burnout symptoms that were described in the post at all, therefore leading to low levels of self-diagnosis and intention to act, as well as identification. The attitudes towards the message were almost neutral, which might support this theory that respondents did not know how to connect with the message and how to feel about it. It would have been interesting to see how the target audience of this post, namely people who do experience high stress levels, would have responded to the experimental

stimuli. Future studies could take on respondents' perception of being targeted by the message as a variable.

5.2. Discussion of interaction effects

However, the statistical analyses did find some significant results. The multivariate analysis of covariance revealed an interaction effect between the directness of the burnout description and the presence of a call to action. This is an unexpected finding, as it was expected that a call to action would always lead to a stronger intention to act, regardless of the situational context or directness of the burnout description. When no call to action was present, mentioning burnout directly lead to a stronger intention to act than when it was merely labelled stress. It is possible that the lack of a call to action combined with the label of burnout increased the urgency to act, compared to when it was called stress. Stress is a feeling that most people know, while burnout is a medical condition that is associated with seeking help, for instance through therapy. When this medical condition was described without a 'take-away' message for the audience, the readers might have felt like the post had an open ending and that they should explore the topic more by acting upon it, thus increasing the intention to act.

At the same time, the interaction effect revealed that an indirect description should be paired with a call to action, as the respondents indicated a stronger intention to act compared to when there was no call to action. It is possible that adding the call to action to the indirect message created the urgency that the direct description possesses by itself, but which the indirect message is missing.

5.3. Discussion of mediation effects

Although, the MANCOVA did not find any significant main effects of the independent variables on the dependent variables self-diagnosis and intention to act, the mediation analysis revealed predictor qualities among the independent and mediator variables.

All three variables that were analysed as mediators in the current study, the credibility attitude towards the message, the liking attitude towards the message, and identification had a significant effect on both self-diagnosis and the intention to act. This is in line with previous research, for

example the Theory of Planned Behaviour (Ajzen, 1991), which suggests that positive attitudes are a strong indicator for behaviour.

Directness was found to be a predictor for the liking attitude, as messages that used the indirect label stress instead of naming burnout directly were liked less. In the context of the current study, it is possible that the label of stress instead of a recognized medical disorder was perceived as an exaggeration, since stress is a common feeling. This is supported by comments by respondents as responses to the open question regarding the identification of the mental disorder in the post. Some participants openly expressed their annoyance and questioned whether something normal as stress required as much action as displayed in the post. Hence, the directness of burnout description has been found to predict liking of the message, which itself influences self-diagnosis and the intention to act directly.

The situational context was identified as having an effect on identification. Personal posts lead to a higher level of identification, which was to be expected and is in line with Cohen (2001), who predicted identification through use of personal pronouns like “I” and “me”. This finding indicates that the situational context can act as a predictor for identification, which itself was found to be influencing self-diagnosis and the intention to act.

The strong positive correlations between the attitude towards the message and identification, and the self-diagnosis and intention to act should be further investigated in future research to study whether there are other underlying variables that might have direct effects on the dependent variables and could be related to directness of the burnout description and the situational context.

5.4. Academic and practical implications

The findings of the current study can be applied in scientific, as well as practical contexts. As research on self-diagnosis seems to be rather limited, the current study has found links to identification and the attitudes of liking and credibility. Future research in this field will be able to build upon these findings and explore the concept of self-diagnosis and intention to act in more depth.

Furthermore, the findings of the current studies can be applied practically, for instance during the creation of mental health awareness campaigns and materials. Different than hypothesized,

directness, situational context and the presence of a call to action do not seem to affect self-diagnosis and the intention to act directly. For the creators of mental health awareness campaigns this would mean more flexibility, if not for the results of the mediation analysis. As the results indicate a positive correlation between identification, attitudes and self-diagnosis and the intention to act, these become valuable variables for awareness materials which involve an exemplar with a mental illness. The current experiment suggests that, in order to effectively guide people through the help seeking process, a certain level of identification and a positive attitude are key. Based on the findings, using influencer messages to encourage help-seeking is not recommended, as the trust in Instagram is low and influences the perception of the post and its content.

The findings regarding self-diagnosis and intention to act have shown that the higher the level of identification and the more positive the attitude (liking and credibility), that people will relate to a problem more and might eventually act upon it themselves. In practice, this could be applied in sales and marketing, for instance in advertisements where marketers want their audience to recognize a problem presented by a person in the ad and ultimately act by purchasing a product or service.

5.5. Limitations and future research

There are several limitations to this study, which future studies could build upon. The influencer "Leah Wilson" was created purely for the purpose of the current study. Working with an existing influencer who is known for openly sharing (mental) health messages on their social media, would have increased the ecological validity of this study, as the research question and hypotheses would have been investigated in the environment they are targeting. Furthermore, there would have been an established relationship between the influencer and his or her audience, which would have increased the level of trust and credibility. Measuring trust and credibility towards an unknown subject is rather unrealistic, as those attitudes stem from previous experiences with, in this case, an influencer.

Another limitation originates in the nature of the filter that was used to identify high-risk respondents. The filtering process was used to protect them from harm and from destructive feelings and thoughts being triggered. However, this does not reflect reality, since people with burnout do use social media and would encounter similar posts to the one in the experiment. Furthermore, it means

that the respondents who participated in the experiment were the ones with lower stress levels, making the post about stress and burnout less relatable for them, regardless of the manipulations. As discussed above, this could have influenced the research results. Future studies might use different filtering techniques to investigate self-diagnosis and the intention to act amongst people with risk for mental illnesses as well.

The current experiment saw participation from a diverse range of nationalities from around the entire world. Thus, the subject group was heterogenous, due to differences in cultures (Hofstede, 1991), how openly mental illnesses are acknowledged in these cultures (Ng, 1997) or differences in health systems. Therefore, the findings cannot be fully generalized and the lack of possible main effects might even be due to the diversity of the sample group. Although the current study had participants from almost 50 countries from around the world, it did not investigate the extent to which there were differences between nationalities and cultures. Future research could investigate whether cultural background influences the level of self-diagnosis and intention to act in a mental health context. For example, it is possible that feminine cultures, like the Netherlands or Sweden, might be more accepting of mental illnesses, compared to masculine cultures, like Germany, Japan or the United States of America, as feminine cultures are focussed on emotions, quality of life and well-being while masculine cultures value work, success and performance (Hofstede, 1991; Claes & Gerritsen, 2002). Additionally, especially in some Asian cultures, the stigma attached of mental illness is strong and mental illnesses are considered shameful (Ng, 1997; Zane, 2014). Admitting health issues would be considered weak and to avoid “loss of face”, damage to the positive image one has in the mind of others, sharing this type of information is not common (Claes & Gerritsen, 2002). Future research should investigate self-diagnosis and intention to act in mental health contexts across cultures to investigate differences, as, to date, no study seems to have done before.

While the current study has taken the first step towards discovering the underlying dimensions of self-diagnosis and intention to act in a mental health context, these are by no means the only possible response behaviour based on mental health messages. Future studies should explore other possible aspects of online messages and their potential effects on these outcome variables. The roles that identification and the liking and credibility attitudes have in this could be explored further as well.

The current study focused on burnout, although the World Health Organization does not consider it a mental illness as of now. Future research could replicate the current study in other mental health contexts, for instance with depression or anxiety as the focus.

5.6. Conclusion

With an increasing number of people turning towards the Internet for health information, including mental health, it was crucial to understand how people perceive influencer messages and apply the information in those posts to their own health situation. While this study could not find significant effects of the message characteristics on self-diagnosis and the intention to act as the two possible responses, it did discover that the attitudes towards the post, specifically liking and the perceived credibility, as well as identification with the influencer, had an effect on both response variables. Furthermore, trust in Instagram was found to be an important predictor for self-diagnosis and the intention to act. Future studies might investigate these concepts and their links more in depth.

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Appendices

Appendix 1 – Pre-Test

a) Pre-Test 1

Opening message

Thank you for filling in this questionnaire! In the following minutes, you will get to see four Instagram posts. Look at each post carefully before proceeding. After that, you will be asked a few questions. It is fully anonymous and you can stop your participation at any time. It will take approximately 15 minutes. By continuing, you agree to participate in this short questionnaire.

Introductory text of materials – Male influencer version & female influencer version

You are about to see an Instagram post by Liam Wilson (@liamwilson). He is a blogger with focus on health and well-being, mindfulness, fitness and food, and he has a professional background in psychology, having been an athlete counsellor for five years while growing his blog. On his blog and Instagram, he shares his own experiences and tips to live a healthy and happy life with his community of 126k followers.

You are about to see an Instagram post by Leah Wilson (@leahwilson). She is a blogger with focus on health and well-being, mindfulness, fitness and food, and she has a professional background in psychology, having been an athlete counsellor for five years while growing her blog. On her blog and Instagram, she shares her own experiences and tips to live a healthy and happy life with her community of 126k followers.

Pre-Test stimuli

	Directness direct vs indirect	**Situational context personal vs factual**	**Call to action yes vs no**
Female 1	Direct	Personal	Yes
Female 2	Indirect	Personal	Yes
Female 3	Direct	Factual	Yes
Female 4	Indirect	Factual	Yes
Female 5	Direct	Personal	No
Female 6	Indirect	Personal	No
Female 7	Direct	Factual	No
Female 8	Indirect	Factual	No
Male 1	Direct	Personal	Yes
Male 2	Indirect	Personal	Yes
Male 3	Direct	Factual	Yes
Male 4	Indirect	Factual	Yes
Male 5	Direct	Personal	No
Male 6	Indirect	Personal	No
Male 7	Direct	Factual	No
Male 8	Indirect	Factual	No


16:38
Instagram
leahwilson
Liked by jane.doe and 5215 others
leahwilson There are moments in life when we don't feel our best, and that's okay. Pressing deadlines, family drama, never-ending lists of tasks, fear of failure and the feeling that everything is becoming too much to handle can cause intense feelings of stress, which can impact our health and well-being. In fact, I myself have burnout and regularly suffer from its outcomes, e.g. insomnia, chest pain, forgetfulness, exhaustion or lack of motivation. If you experience similar symptoms, reach out to your friends, a psychologist or your general practitioner for help!
#mentalhealth #burnout #stress #advice #selfcare #mentalhealthawareness
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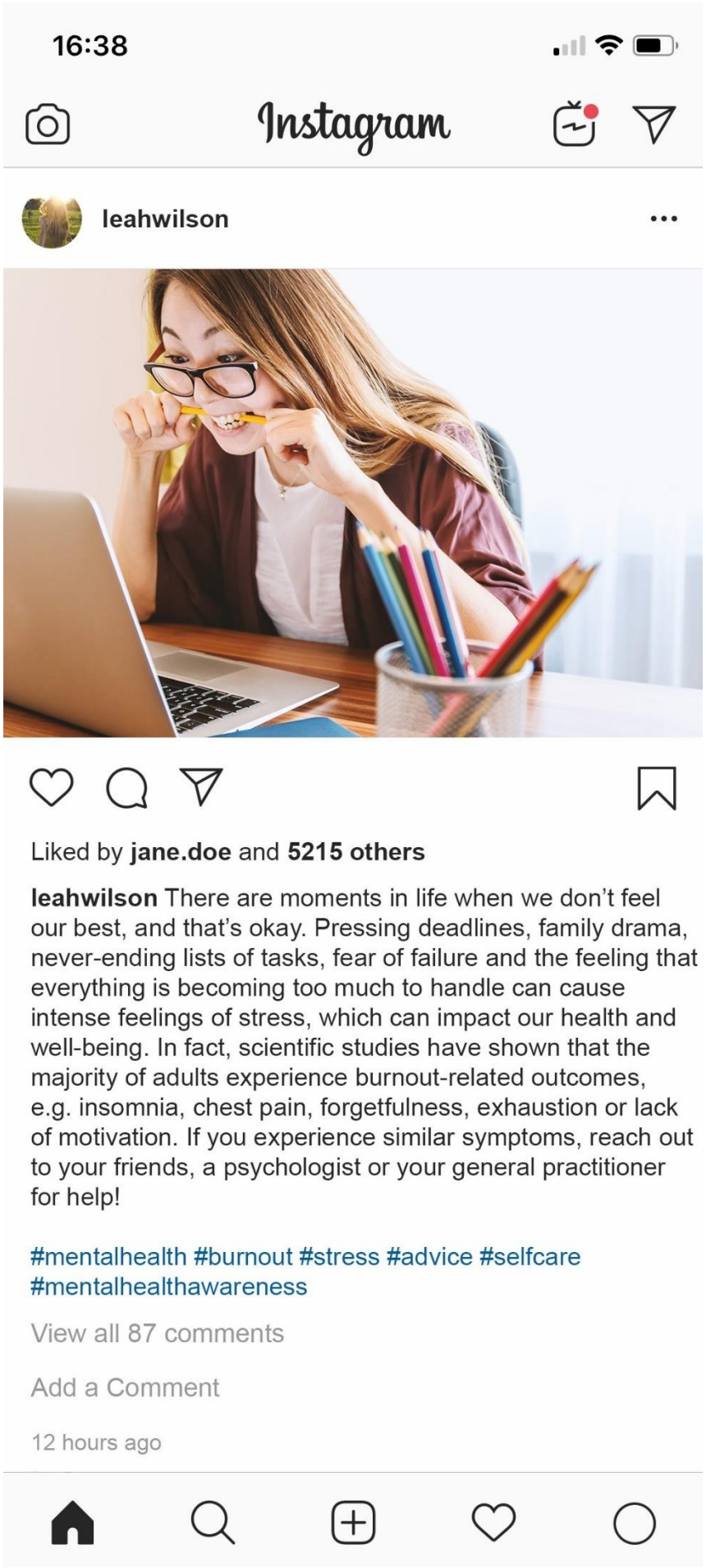
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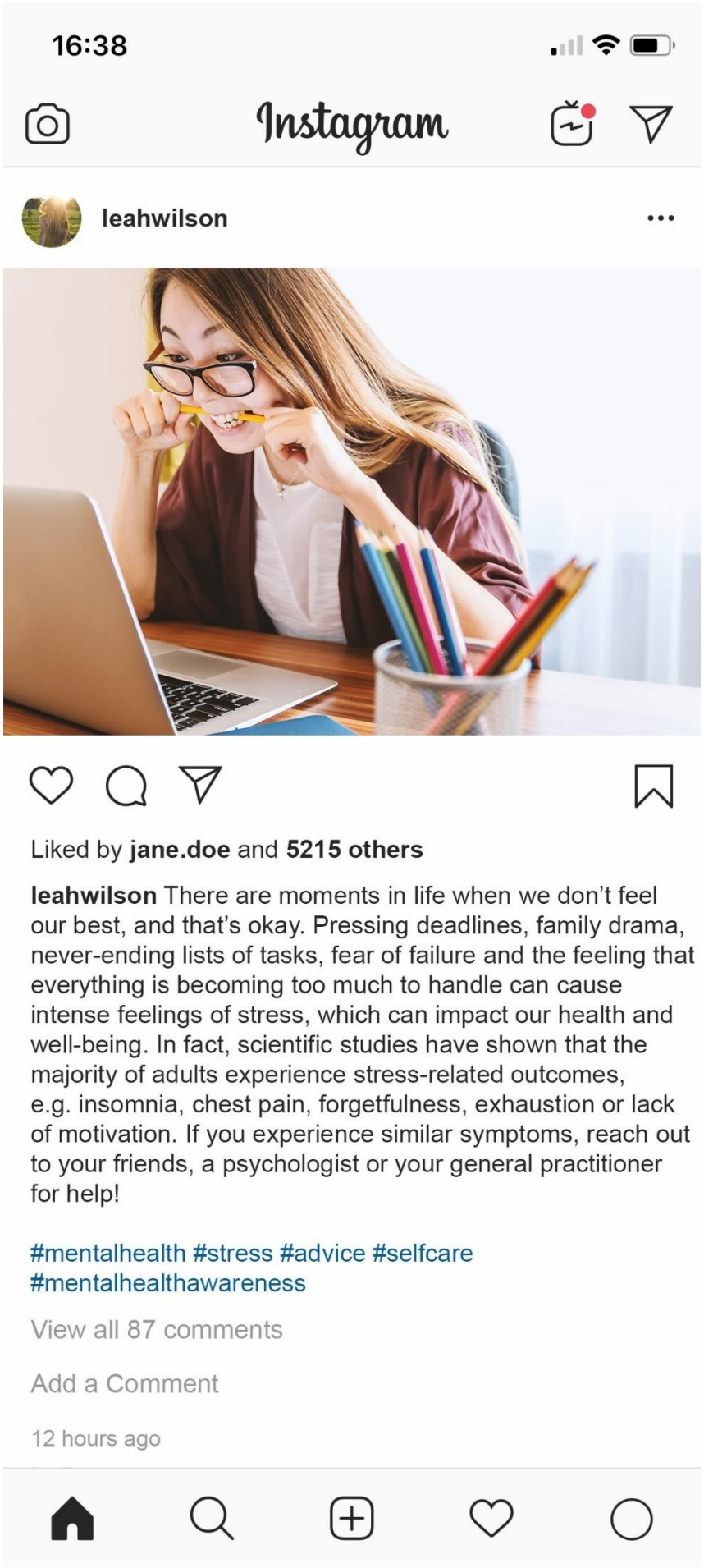
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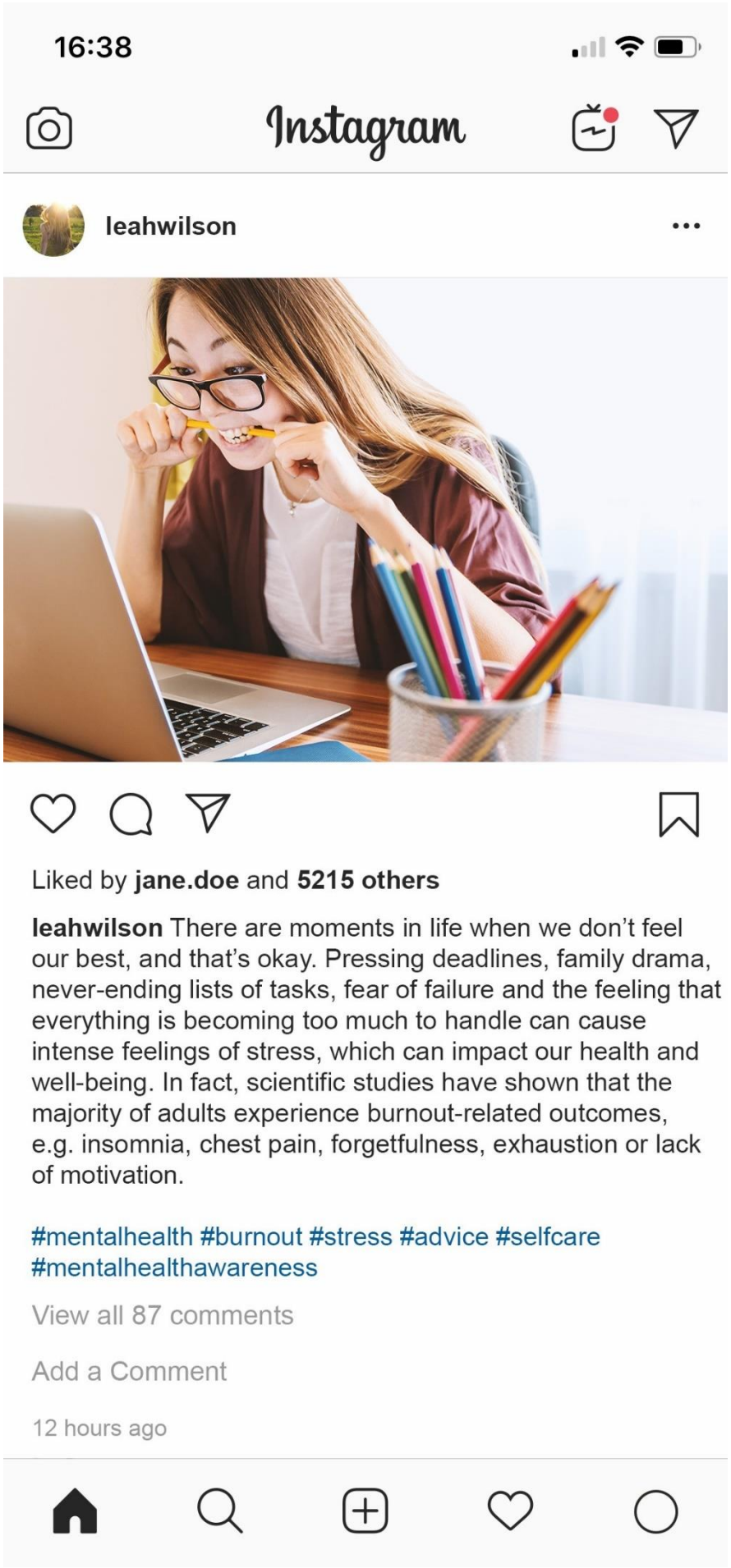
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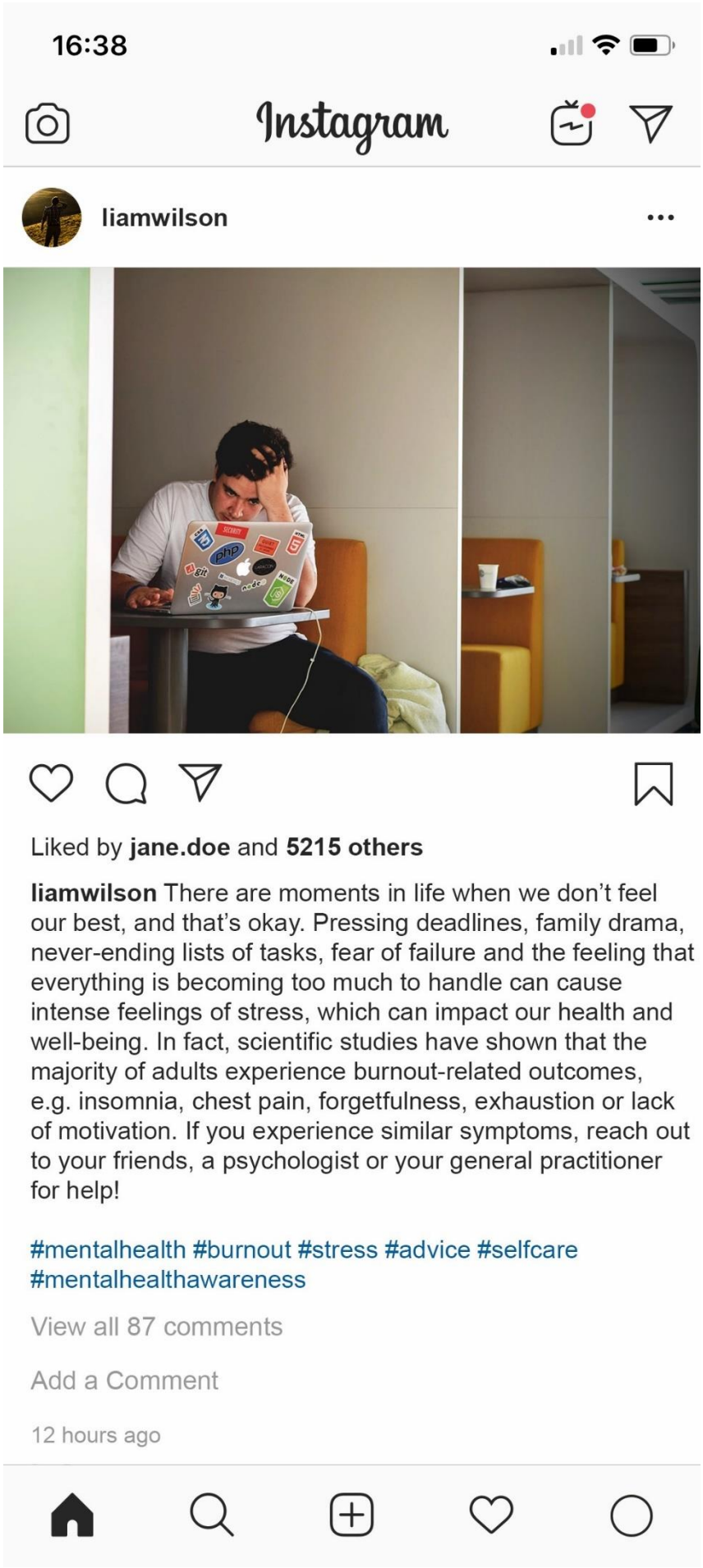
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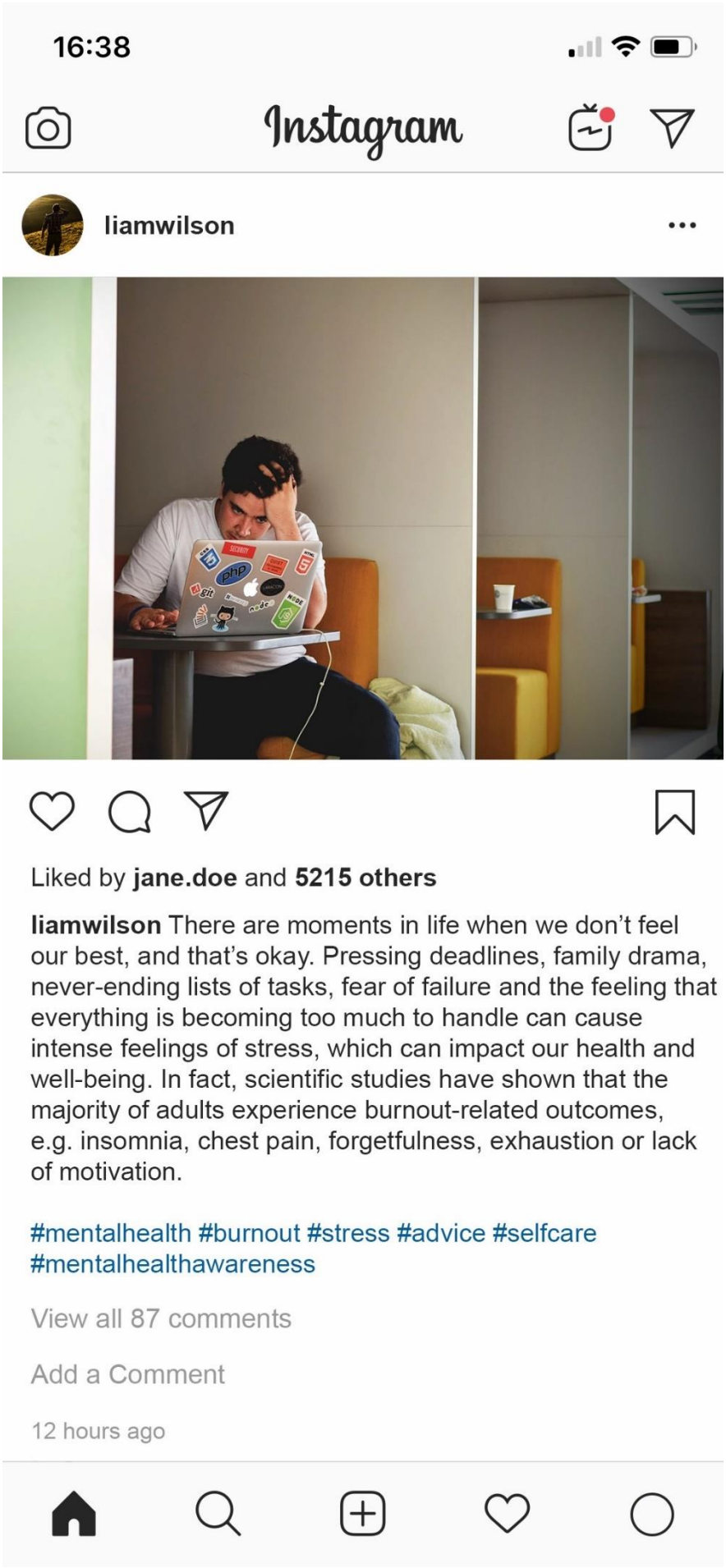
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liamwilson There are moments in life when we don't feel our best, and that's okay. Pressing deadlines, family drama, never-ending lists of tasks, fear of failure and the feeling that everything is becoming too much to handle can cause intense feelings of stress, which can impact our health and well-being. In fact, scientific studies have shown that the majority of adults experience stress-related outcomes, e.g. insomnia, chest pain, forgetfulness, exhaustion or lack of motivation.
#mentalhealth #stress #advice #selfcare #mentalhealthawareness
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12 hours ago

Questionnaire

Please mention the number of followers the person in the post has. _____

Please mention how many likes the post has received. _____

Please mention the number of comments the post has received. _____

Based on the number of followers, likes and comments, would you perceive the post as popular?

o Definitely yes (1)
o Probably yes (2)
o Might or might not (3)
o Probably not (4)
o Definitely not (5)

In general, would you perceive the post to be realistic as a post to appear on Instagram?

o Definitely yes (1)
o Probably yes (2)
o Might or might not (3)
o Probably not (4)
o Definitely not (5)

Was the person in the post male or female?

o Male (1)
o Female (2)
o Cannot recall (3)

Please estimate the age of the person you saw in the post. _____

From reading the post, was it clear to you which mental disorder was being addressed in the post?

o No, completely unclear (1)
o Rather unclear (2)
o Neither clear, nor unclear (3)
o Reasonably clear (4)
o Yes, very clear (5)

Please name the mental disorder that was addressed in the post. _____

From reading the post, would you perceive that the content tells a personal story?

o Completely agree (1)

o Agree (2)
o Neutral (3)
o Disagree (4)
o Completely disagree (5)

From reading the post, would you perceive that the content holds factual information?
o Completely agree (1)
o Agree (2)
o Neutral (3)
o Disagree (4)
o Completely disagree (5)

From reading the post, is it clear what to do if a reader would perceive him or herself in a similar mental state?
o No, completely unclear (1)
o Rather unclear (2)
o Neither clear, nor unclear (3)
o Reasonably clear (4)
o Yes, very clear (5)

Please name the options that the post names for readers who perceive themselves in a similar mental state. _____

b) Pre-Test 2

Opening message

Thank you for filling in this questionnaire! It is fully anonymous and you can stop your participation at any time. It will only take a maximum of 3 minutes.
You are about to see an Instagram post by Leah Wilson (@leahwilson). She is a blogger with focus on health and well-being, mindfulness, fitness and food, and she has a professional background in psychology, having been an athlete counsellor for five years while growing her blog. On her blog and Instagram, she shares her own experiences and tips to live a healthy and happy life with her community of 126k followers.
Read the post carefully before proceeding to a few questions.

Revised materials after pre-test 1

Factual version

Personal version

Questionnaire

From reading the post, would you perceive that the content tells a personal story?

o Completely agree (1)
o Agree (2)
o Neutral (3)
o Disagree (4)
o Completely disagree (5)

From reading the post, would you perceive that the content contains information that is based on scientific studies and facts?

o Completely agree (1)

o Agree (2)
o Neutral (3)
o Disagree (4)
o Completely disagree (5)

Closing message

You have reached the end of this questionnaire.

Thank you for your participation! This questionnaire was the pre-test for my Master thesis research and I appreciate your help. The posts and influencers were created solely for the purpose of this study and are completely fictional.

In case you experience similar symptoms as described in the post, please reach out for help, e.g. with friends, a psychologist or your general practitioner.

If you have any questions, please contact me under l.hebben@student.utwente.nl.

Appendix 2 – Experimental stimuli

	Directness direct vs indirect	**Situational context personal vs factual**	**Call to action yes vs no**
Material 1	Direct	Personal	Yes
Material 2	Indirect	Personal	Yes
Material 3	Direct	Factual	Yes
Material 4	Indirect	Factual	Yes
Material 5	Direct	Personal	No
Material 6	Indirect	Personal	No
Material 7	Direct	Factual	No
Material 8	Indirect	Factual	No


16:38
Instagram
leahwilson
Liked by jane.doe and 5215 others
leahwilson There are moments in life when we don't feel our best, and that's okay. Pressing deadlines, family drama, never-ending lists of tasks, fear of failure and the feeling that everything is becoming too much to handle can cause intense feelings of stress, which can impact our health and well-being. Today, I want to share my story, as I have suffered from burnout for almost three years now and it has had a massive impact on my life. I regularly experience burnout-related outcomes like insomnia, chest pain, forgetfulness, exhaustion or lack of motivation. If you experience similar symptoms, reach out to your friends, a psychologist or your general practitioner for help.
#mentalhealth #burnout #stress #advice #selfcare #mentalhealthawareness
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Instagram
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#mentalhealth #stress #advice #selfcare #mentalhealthawareness
View all 87 comments
Add a Comment
12 hours ago

Appendix 3 – Experimental questionnaire

Thank you for participating in this study that I am conducting as my master thesis project in Communication Studies at the University of Twente. I am researching social media use in relation to health and would like to ask you to fill in this online questionnaire, which takes around 5-8 minutes. Please read the following information carefully before proceeding:

Your participation is fully voluntarily, and you can stop at any moment. Your answers are treated anonymously and confidentially; they will only be used by the researcher in the context of this study. There are no right or wrong answers, please answer honestly. Please be aware that this study will ask you about your mental state related to stress.

If you have any questions, do not hesitate to contact me: l.hebben@student.utwente.nl.

Thank you.

Laura Hebben

Do you agree to participate in this survey?

▢ Yes (1)

▢ No (2) → end of survey in case this answer was chosen

Please indicate to what extent you agree with the following statements about the Internet.

	Strongly disagree (1)	Disagree (2)	Somewhat disagree (3)	Neither agree nor disagree (4)	Somewhat agree (5)	Agree (6)	Strongly agree (7)
The Internet is a valuable source for information. (1)	○	○	○	○	○	○	○
The Internet is an essential tool for finding information. (2)	○	○	○	○	○	○	○
Overall, I consider the Internet to be a good thing. (3)	○	○	○	○	○	○	○

In general, information on the Internet is misleading. (4)	○	○	○	○	○	○	○
My general opinion of the Internet is unfavourable. (5)	○	○	○	○	○	○	○
Information on the Internet is generally truthful. (6)	○	○	○	○	○	○	○
I can depend on getting the truth on the Internet. (7)	○	○	○	○	○	○	○

Do you have an Instagram account?

o No (1)

o Yes (2)

How frequently do you browse Instagram? (this question only appears, when the previous question was answered with 'yes')

o Less than once per month (1)

o Once per month (2)

o Once every two weeks (3)

o Once a week (4)

o Several times per week (5)

o Daily (6)

o Several times per day (7)

Please indicate to what extent you agree with the following statements about Instagram.

	Strongly disagree (1)	Disagree (2)	Somewhat disagree (3)	Neither agree nor	Somewhat agree (5)	Agree (6)	Strongly agree (7)

				disagree (4)			
Instagram is a valuable source for information. (1)	○	○	○	○	○	○	○
I trust information that I find on Instagram to be true. (2)	○	○	○	○	○	○	○
Overall, I find information on Instagram to be misleading. (3)	○	○	○	○	○	○	○
When I find information on Instagram, I double-check with a different source. (4)	○	○	○	○	○	○	○
My general opinion of Instagram is unfavourable. (5)	○	○	○	○	○	○	○

Please indicate to what extent you agree with the following statements.

	Strongly disagree (1)	Disagree (2)	Somewhat disagree (3)	Neither agree nor disagree (4)	Somewhat agree (5)	Agree (6)	Strongly agree (7)
I have enough time for my family and friends. (1)	○	○	○	○	○	○	○
I feel emotionally drained from my	○	○	○	○	○	○	○

job/study/occupation. (2)							
I perform well in my work/study. (3)	○	○	○	○	○	○	○
I feel healthy. (4)	○	○	○	○	○	○	○
I doubt the significance of my work/studies. (5)	○	○	○	○	○	○	○

Please indicate to what extent you agree with the following statements.

	Strongly disagree (1)	Disagree (2)	Somewhat disagree (3)	Neither agree nor disagree (4)	Somewhat agree (5)	Agree (6)	Strongly agree (7)
I eat healthily on a regular basis. (1)	○	○	○	○	○	○	○
I feel burnt out from my work/studies. (2)	○	○	○	○	○	○	○
I feel very energetic. (3)	○	○	○	○	○	○	○
I feel fatigued when getting up in the morning. (4)	○	○	○	○	○	○	○
I regularly partake in different leisure activities in my free time. (5)	○	○	○	○	○	○	○

Please indicate to what extent you agree with the following statements.

	Strongly disagree (1)	Disagree (2)	Somewhat disagree (3)	Neither agree nor disagree (4)	Somewhat agree (5)	Agree (6)	Strongly agree (7)

I feel used up at the end of a workday. (1)	○	○	○	○	○	○	○
I feel frustrated from my work. (2)	○	○	○	○	○	○	○
I exercise/play sports regularly. (3)	○	○	○	○	○	○	○
I think "I can't take it anymore". (4)	○	○	○	○	○	○	○
I feel weak and susceptible to illness. (5)	○	○	○	○	○	○	○

Please indicate your gender.

o Male (1)

o Female (2)

o Other (3)

o Choose not to disclose. (4)

Please indicate your age. _____

Please indicate your nationality.

▼ Afghanistan ... Zimbabwe

Please indicate your highest obtained educational degree.

o Less than high school diploma / secondary education degree (1)

o High school diploma / secondary education degree (2)

o Bachelor's Degree (3)

o Master's Degree (4)

o Doctorate Degree (e.g. PhD, EhD) (5)

Please indicate your current occupation.

o Employed full time (1)
o Employed part time (2)
o Student (3)
o Unemployed (4)
o Retired (5)

Please indicate your marital status.

o Single (1)
o In a relationship (2)
o Married (3)
o Divorced (4)
o Widowed (5)

End of first part of the questionnaire; end of the filter. If a respondent answered "Somewhat agree" (5), "Agree" (6) or "Strongly agree" (7) on the 7-point Likert scale on all four filter statements ("I feel emotionally drained from my job/study/occupation", "I feel burnt out from my work/studies", "I feel used up at the end of a workday", "I think I can't take it anymore"), they were filtered out and received the following message:

Thank you for participating in this study, which was conducted in the context of my master thesis in Communication Studies. Your anonymous response has been recorded and will be used for this study only. In case you wish to withdraw your initial consent that was given prior to the questionnaire, please contact l.hebben@student.utwente.nl.

Start of the experiment

Next, you will be presented with an Instagram post by Leah Wilson (@leahwilson). She is a popular blogger with focus on health and well-being, mindfulness, fitness and food, and she has a professional background in psychology, having been a well-being counsellor for five years while growing her blog. On her blog and Instagram, she shares her own experiences and tips to live a healthy and happy life with her community of 126000 followers.
Read the post carefully and answer the subsequent questions.

(one stimulus shown randomly)

I found the content of the post…

	1	2	3	4	5	6	7	
Interesting	○	○	○	○	○	○	○	Uninteresting
Unfriendly	○	○	○	○	○	○	○	Friendly
Negative	○	○	○	○	○	○	○	Positive
Appealing	○	○	○	○	○	○	○	Unappealing
Sympathetic	○	○	○	○	○	○	○	Unsympathetic
Boring	○	○	○	○	○	○	○	Exciting
Enjoyable	○	○	○	○	○	○	○	Unenjoyable
Lively	○	○	○	○	○	○	○	Dull

I found the post…

	1	2	3	4	5	6	7	
Accurate	○	○	○	○	○	○	○	Inaccurate
False	○	○	○	○	○	○	○	True
Authentic	○	○	○	○	○	○	○	Inauthentic
Believable	○	○	○	○	○	○	○	Implausible
Unreliable	○	○	○	○	○	○	○	Reliable
Trustworthy	○	○	○	○	○	○	○	Untrustworthy

Please indicate to what extent you agree with the following statements.

	Strongly disagree (1)	Disagree (2)	Somewhat disagree (3)	Neither agree nor disagree (4)	Somewhat agree (5)	Agree (6)	Strongly agree (7)
While reading the post, I kept thinking about my own health. (1)	○	○	○	○	○	○	○
While reading the post, I	○	○	○	○	○	○	○

recognized some of the described symptoms in myself. (2)							
While reading the post, I could relate my personal health situation to what the influencer wrote about. (3)	○	○	○	○	○	○	○
Reading the post helped me to diagnose my own health situation. (4)	○	○	○	○	○	○	○
The content of the post reflects my own health situation. (5)	○	○	○	○	○	○	○
While reading, I got worried about my own state of health. (6)	○	○	○	○	○	○	○

Please indicate to what extent you agree with the following statements.

	Strongly disagree (1)	Disagree (2)	Somewhat disagree (3)	Neither agree nor disagree (4)	Somewhat agree (5)	Agree (6)	Strongly agree (7)
After reading the post, I intend to share the information with others. (1)	○	○	○	○	○	○	○
After reading the post, I intend to spread the post's content among more people who might benefit from it. (2)	○	○	○	○	○	○	○
After reading the post, I intend to tell my friends and family about the information in the post. (3)	○	○	○	○	○	○	○

Please indicate to what extent you agree with the following statements.

	Strongly disagree (1)	Disagree (2)	Somewhat disagree (3)	Neither agree nor	Somewhat agree (5)	Agree (6)	Strongly agree (7)

				disagree (4)			
After reading the post, I intend to seek help from others. (1)	○	○	○	○	○	○	○
After reading the post, I have realized that I cannot deal with my health situation by myself any longer. (2)	○	○	○	○	○	○	○
After reading the post, I intend to contact people I know or professionals for support. (3)	○	○	○	○	○	○	○

Please indicate to what extent you agree with the following statements.

	Strongly disagree (1)	Disagree (2)	Somewhat disagree (3)	Neither agree nor disagree (4)	Somewhat agree (5)	Agree (6)	Strongly agree (7)
While reading the post, I could imagine how the influencer	○	○	○	○	○	○	○

is feeling. (1)							
While reading the post, I felt connected to the influencer. (2)	○	○	○	○	○	○	○
At some points while reading, I felt like I was looking inside the influencer's mind. (3)	○	○	○	○	○	○	○
While reading the post, I was feeling the same emotions that the influencer was feeling. (4)	○	○	○	○	○	○	○
While reading the post, I could position myself in the situation of the influencer. (5)	○	○	○	○	○	○	○

Please indicate to what extent you agree with the following statements about the Instagram post you saw.

The content of the post tells a personal story.

- o Strongly disagree (1)
- o Disagree (2)
- o Somewhat disagree (3)
- o Neither agree nor disagree (4)
- o Somewhat agree (5)
- o Agree (6)
- o Strongly agree (7)

The content of the post contains information that is based on scientific studies and facts.

- o Strongly disagree (1)
- o Disagree (2)
- o Somewhat disagree (3)
- o Neither agree nor disagree (4)
- o Somewhat agree (5)
- o Agree (6)
- o Strongly agree (7)

The content of the post is realistic as a post to appear on Instagram.

- o Strongly disagree (1)
- o Disagree (2)
- o Somewhat disagree (3)
- o Neither agree nor disagree (4)
- o Somewhat agree (5)
- o Agree (6)
- o Strongly agree (7)

Based on the post you read, which mental disorder was being addressed in the post? _____

Based on the post you read, what are actions that readers, who perceive themselves in a similar mental state, can undertake? _____

Closing message + debriefing

Thank you for your participation in this study! The purpose of this online experiment was to investigate to what extent aspects of online communication about burn-out (the directness with which burnout is mentioned, the presence of a “call to action” and either a personal or a factual/scientific

context) would influence self-diagnosis with this mental disorder as well as the intention to act. In order to obtain unbiased results, it was necessary to withhold this information about the purpose of the experiment.

In case you wish to withdraw your initial consent that was given prior to the questionnaire, please contact the researcher (l.hebben@student.utwente.nl).

The Instagram post as well as the influencer were fully fictitious. The post was created for the purpose of this study only.

If you recognize symptoms of burn-out, speak to your general practitioner or psychologist for professional help.

Appendix 4 – Overview of participant nationality

Table. Demographics (nationality) of research participants

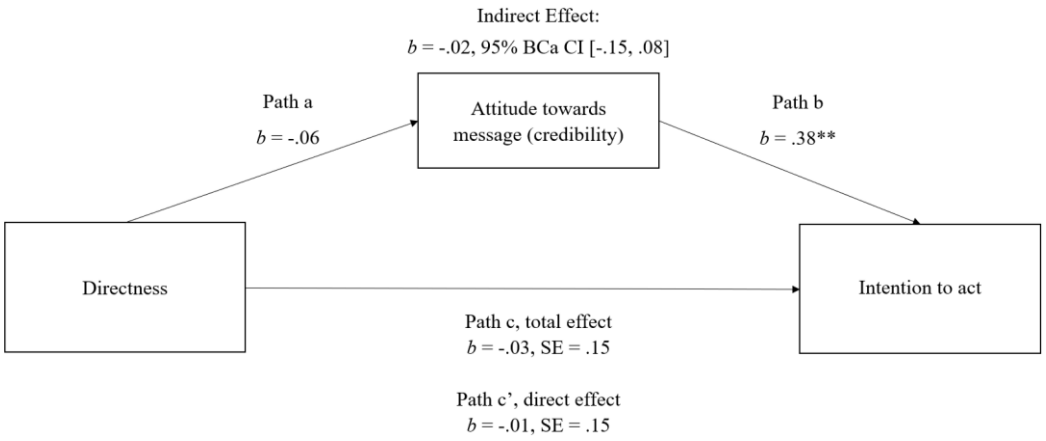
Nationality	N	%
Armenia	1	0.4
Australia	4	1.6
Bangladesh	1	0.4
Belgium	2	0.8
Bolivia	1	0.4
Brazil	2	0.8
Bulgaria	7	2.9
Canada	4	1.6
China	2	0.8
Colombia	2	0.8
Czech Republic	2	0.8
Egypt	1	0.4
Finland	4	1.6
Germany	60	24.5
Ghana	1	0.4
Greece	4	1.6
Hungary	2	0.8
India	7	2.9
Indonesia	4	1.6
Iran	2	0.8
Ireland	2	0.8
Israel	1	0.4
Italy	8	3.3
Kazakhstan	1	0.4
Latvia	2	0.8
Malaysia	6	2.4
Mexico	1	0.4
Nepal	1	0.4
Netherlands	39	15.9
New Zealand	1	0.4
Nigeria	4	1.6
Norway	1	0.4
Poland	1	0.4
Republic of Moldova	2	0.8

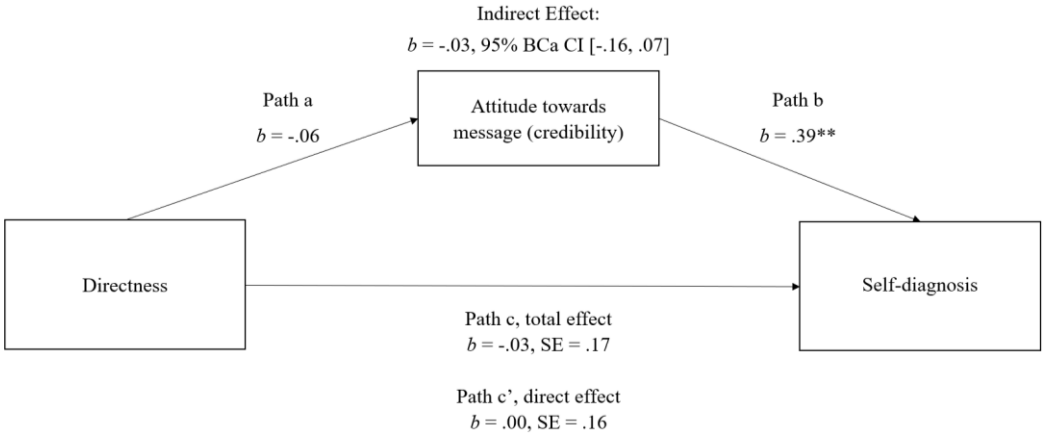
Republic of North Macedonia	1	0.4
Romania	4	1.6
Russian Federation	2	0.8
Serbia	1	0.4
Singapore	2	0.8
Slovakia	1	0.4
Slovenia	2	0.8
Spain	3	1.2
Switzerland	1	0.4
Turkey	1	0.4
United Arab Emirates	1	0.4
United Kingdom of Great Britain and Northern Ireland	16	6.5
United States of America	25	10.2
Vietnam	2	0.8
Total	**245**	**100**

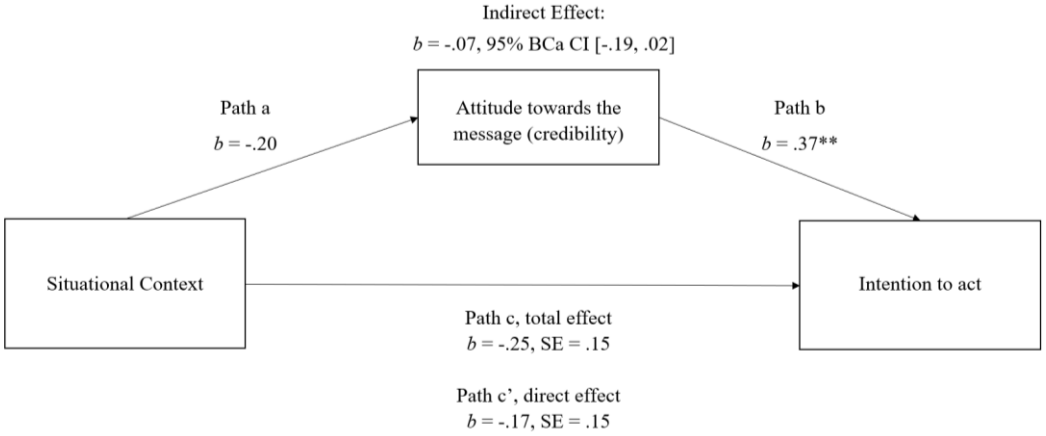
Appendix 5 – Models of mediation

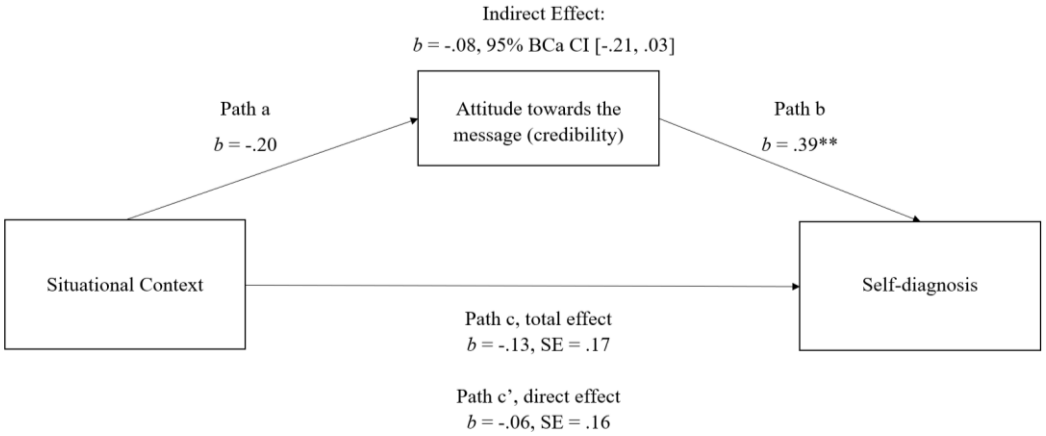
The models in the following sections visualize the results of the mediation analyses that are described in section 4.5. of this study. Significant effects are marked (* significant effect with $p < .05$, ** significant effect with $p < .001$).

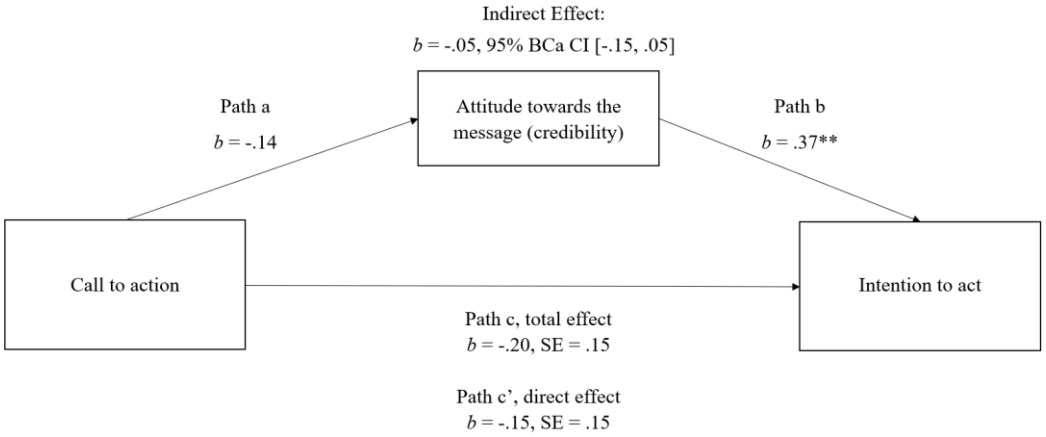
Mediation of credibility attitude towards the message

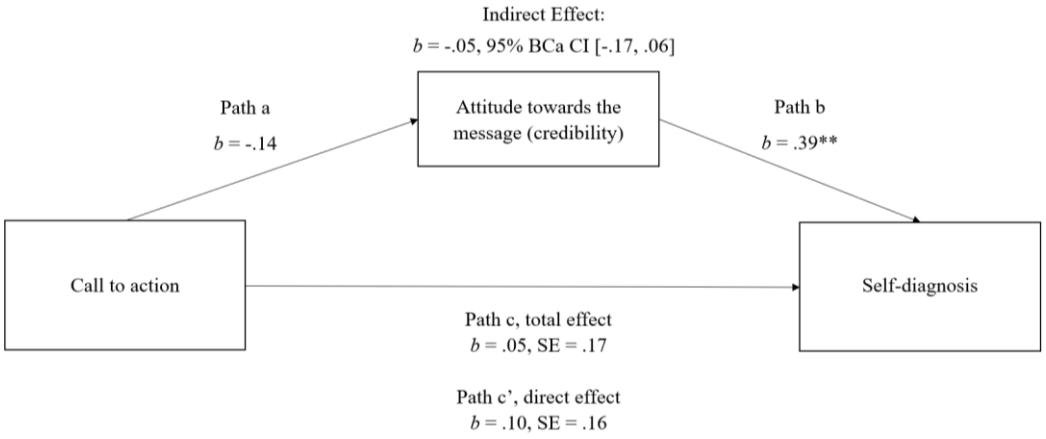



Indirect Effect:
b = -.03, 95% BCa CI [-.16, .07]
Path a
b = -.06
Attitude towards message (credibility)
Path b
b = .39**
Directness
Self-diagnosis
Path c, total effect
b = -.03, SE = .17
Path c', direct effect
b = .00, SE = .16

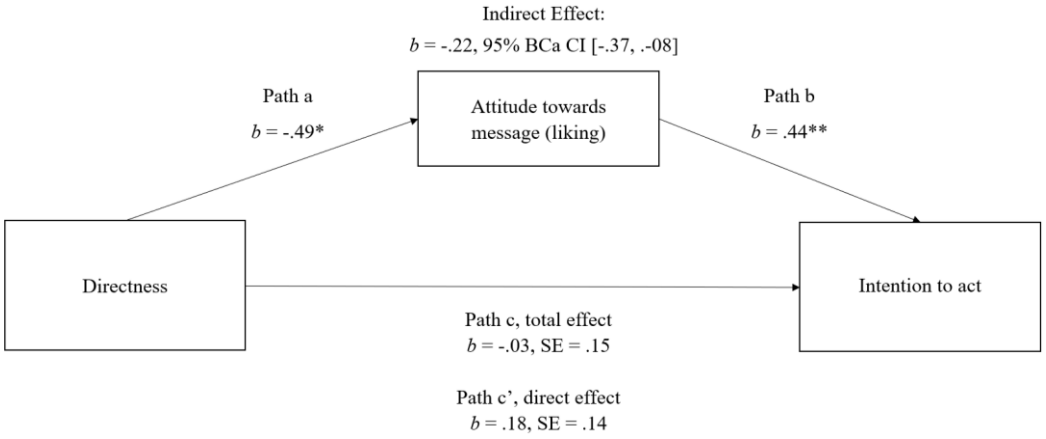

Indirect Effect:
b = -.07, 95% BCa CI [-.19, .02]
Path a
b = -.20
Attitude towards the message (credibility)
Path b
b = .37**
Situational Context
Intention to act
Path c, total effect
b = -.25, SE = .15
Path c', direct effect
b = -.17, SE = .15

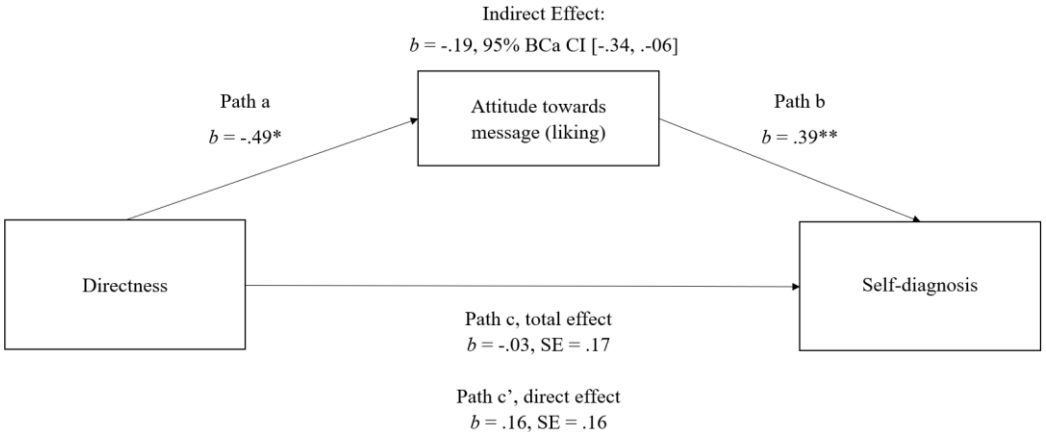

Indirect Effect:
b = -.08, 95% BCa CI [-.21, .03]
Path a
b = -.20
Attitude towards the message (credibility)
Path b
b = .39**
Situational Context
Self-diagnosis
Path c, total effect
b = -.13, SE = .17
Path c', direct effect
b = -.06, SE = .16

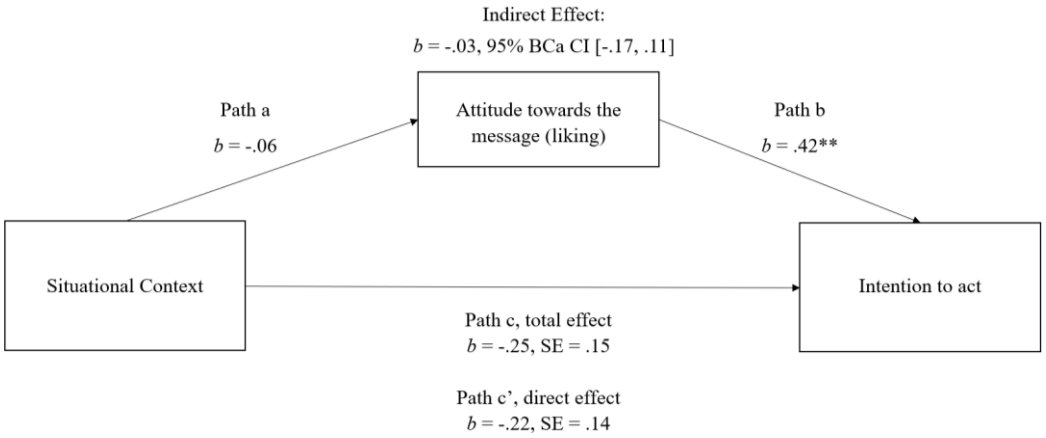


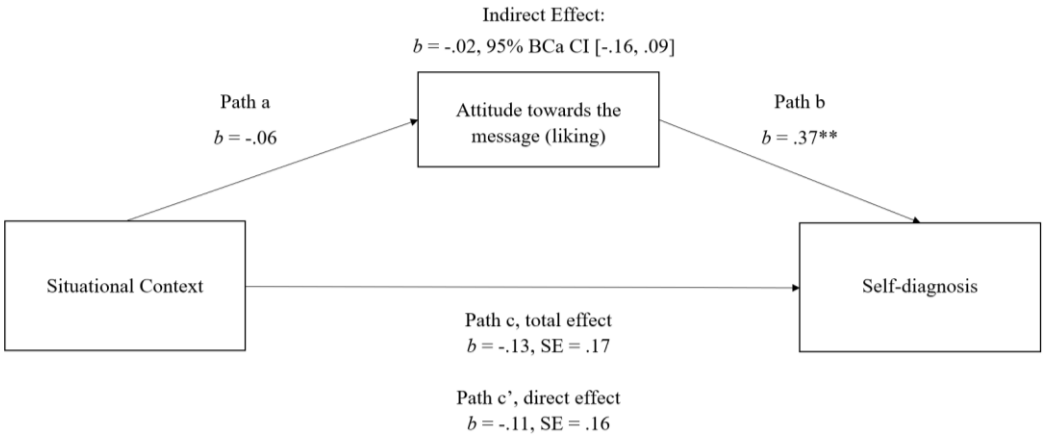


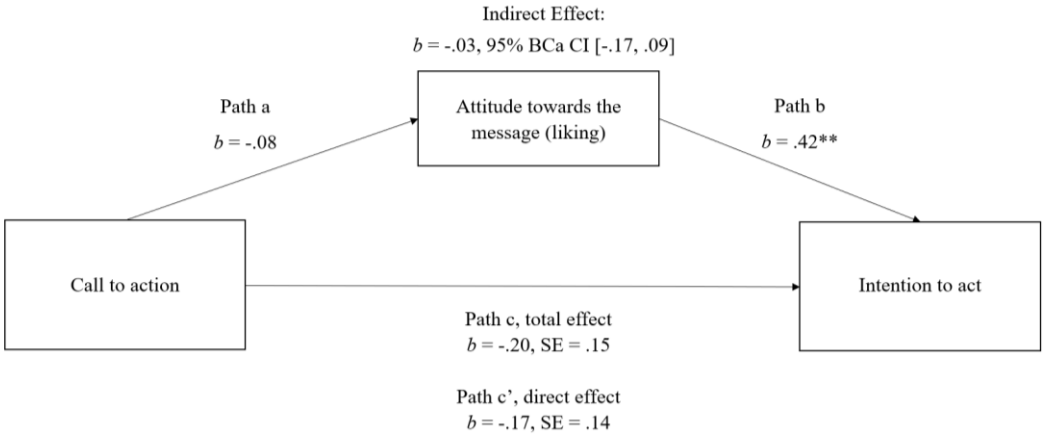
Mediation of liking attitude towards the message

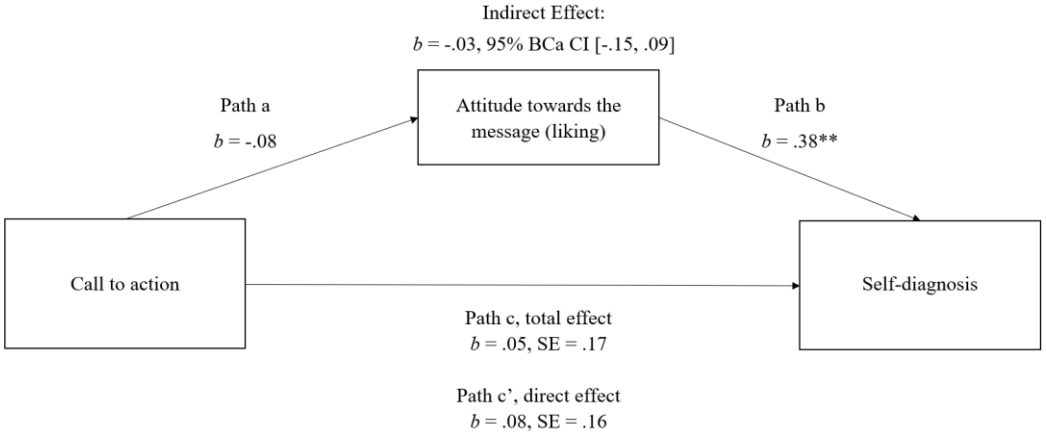



Indirect Effect:
b = -.19, 95% BCa CI [-.34, .-06]
Path a
b = -.49*
Attitude towards message (liking)
Path b
b = .39**
Directness
Self-diagnosis
Path c, total effect
b = -.03, SE = .17
Path c', direct effect
b = .16, SE = .16

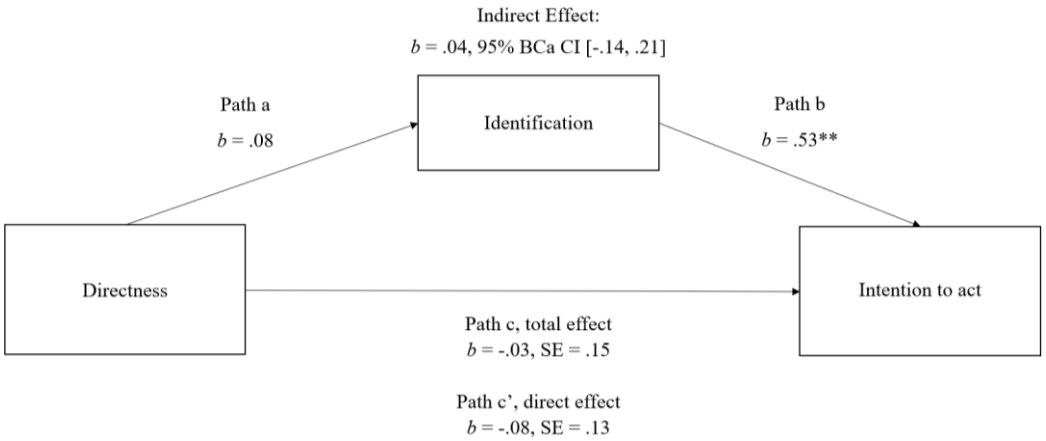

Indirect Effect:
b = -.03, 95% BCa CI [-.17, .11]
Path a
b = -.06
Attitude towards the message (liking)
Path b
b = .42**
Situational Context
Intention to act
Path c, total effect
b = -.25, SE = .15
Path c', direct effect
b = -.22, SE = .14

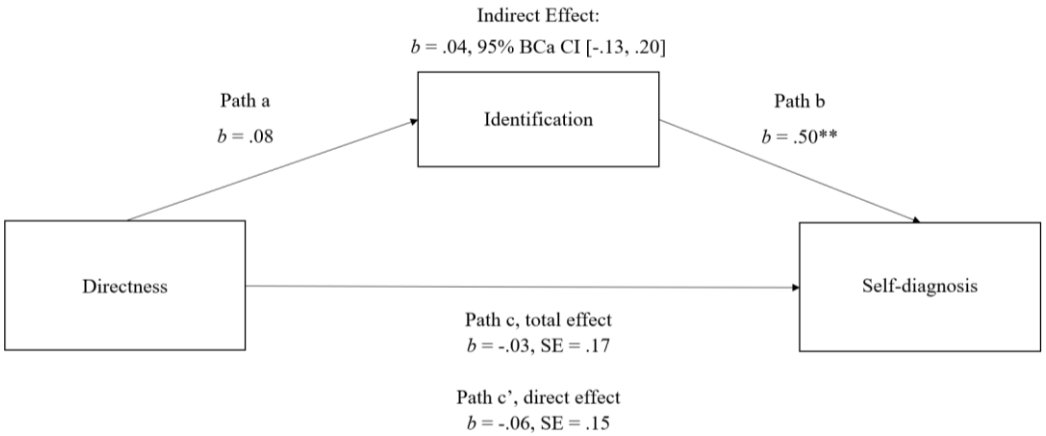

Indirect Effect:
b = -.02, 95% BCa CI [-.16, .09]
Path a
b = -.06
Attitude towards the message (liking)
Path b
b = .37**
Situational Context
Self-diagnosis
Path c, total effect
b = -.13, SE = .17
Path c', direct effect
b = -.11, SE = .16

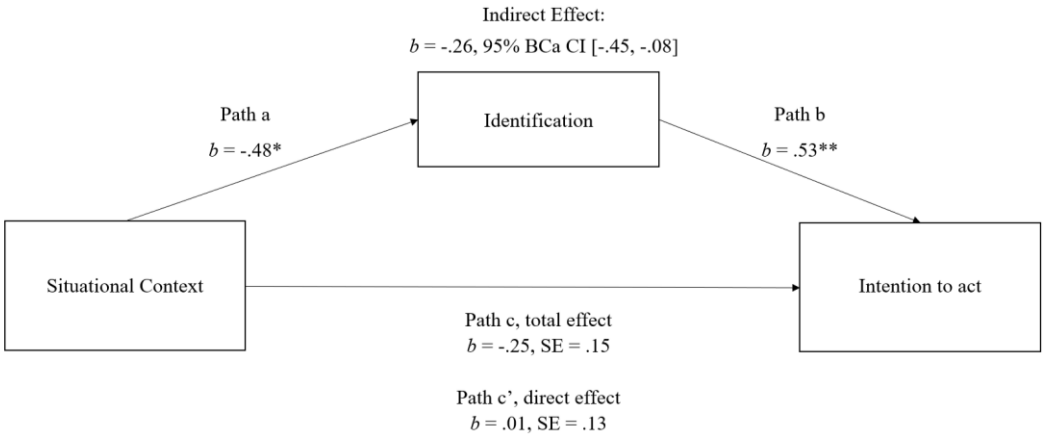


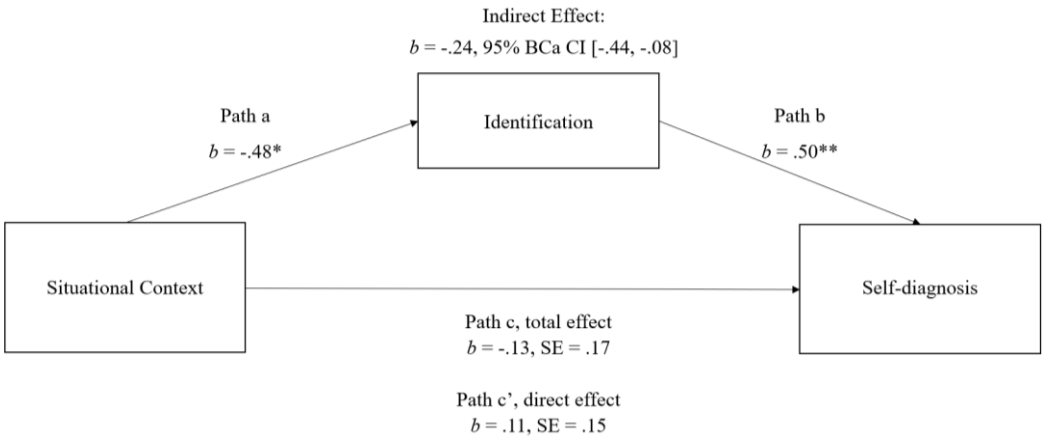


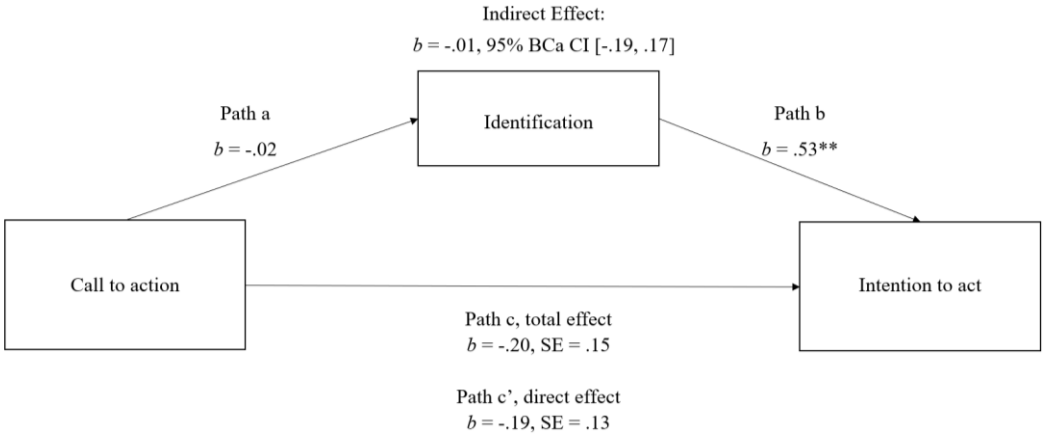
Mediation of identification

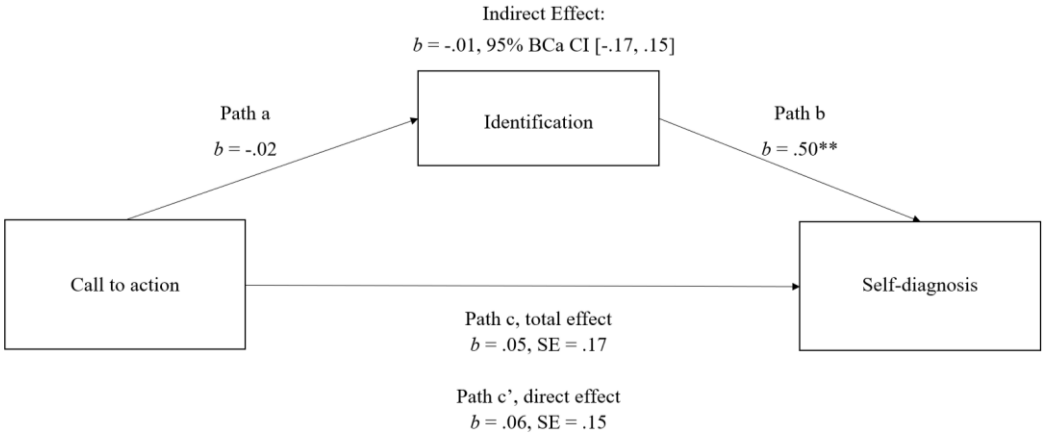



Indirect Effect:
b = .04, 95% BCa CI [-.13, .20]
Path a
b = .08
Identification
Path b
b = .50**
Directness
Self-diagnosis
Path c, total effect
b = -.03, SE = .17
Path c', direct effect
b = -.06, SE = .15


Indirect Effect:
b = -.26, 95% BCa CI [-.45, -.08]
Path a
b = -.48*
Identification
Path b
b = .53**
Situational Context
Intention to act
Path c, total effect
b = -.25, SE = .15
Path c', direct effect
b = .01, SE = .13


Indirect Effect:
b = -.24, 95% BCa CI [-.44, -.08]
Path a
b = -.48*
Identification
Path b
b = .50**
Situational Context
Self-diagnosis
Path c, total effect
b = -.13, SE = .17
Path c', direct effect
b = .11, SE = .15


Indirect Effect:
b = -.01, 95% BCa CI [-.19, .17]
Path a
b = -.02
Identification
Path b
b = .53**
Call to action
Intention to act
Path c, total effect
b = -.20, SE = .15
Path c', direct effect
b = -.19, SE = .13


Indirect Effect:
b = -.01, 95% BCa CI [-.17, .15]
Path a
b = -.02
Identification
Path b
b = .50**
Call to action
Self-diagnosis
Path c, total effect
b = .05, SE = .17
Path c', direct effect
b = .06, SE = .15