

## **Recruiting nurses through social media: Effects on employer brand and attractiveness**

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## **ABSTRACT**

### **Aim**

To investigate whether and how nurses' exposure to a hospital's profile on social media affects their perceptions of the hospital's brand and attractiveness as an employer.

### **Background**

Since in many places across the globe hospitals are struggling with nursing shortages, competition is rising to be perceived as an attractive employer by this target group.

Organizations are increasingly using social media for recruitment, however, little is known about its effects on potential applicants' perceptions of the organization as an employer. We thus examine whether these effects occur and rely on the media richness theory to explain the mechanisms at play.

### **Design**

A between-subjects experimental design was applied. Three conditions were used: a control group, one condition that required visiting the Facebook page of a hospital and one condition that required visiting the LinkedIn page.

### **Method**

The focal organization was an existing Belgian hospital which had a LinkedIn and a Facebook page. An online questionnaire was sent to nursing students and employed nurses over 5 months in 2015-2016.

### **Results**

Nurses' exposure to the hospital's Facebook or LinkedIn page had a significant positive effect on a majority of the employer brand dimensions, both instrumental and symbolic. In addition, nurses who visited the Facebook page felt more attracted to working at the hospital. Most of these effects were mediated by social presence.

## **Conclusion**

Nurses' perceptions of employers can be positively influenced by seeing a hospital's social media page. Hospitals can thus employ social media to improve their employer brand image and attractiveness.

## *Keywords*

recruitment, employer branding, social media, Facebook, LinkedIn, organizational image, organizational attractiveness, nurses, hospital

## SUMMARY STATEMENT

### **Why is this research or review needed?**

- In several countries and regions, healthcare organizations are competing to attract sufficient numbers of qualified nurses due to causes such as population ageing and constrained resources.
- Social media are a promising tool for recruitment and employer branding. Organizations are increasingly investing in these media for recruitment, but research to guide these practices is limited.

### **What are the key findings?**

- A hospital's profile on social media can be used to improve applicant attraction and to shape employer brand perceptions among nurses.
- Social presence plays an important role in explaining the effects of social media on potential applicants' perceptions of the organization as an employer.

### **How should the findings be used to influence policy/practice/research/education?**

- Our results indicate that hospitals can use social media to enhance their image of an attractive employer in the eyes of potential applicants.
- Future research should investigate the determinants of social presence in social media because this plays an important role in the positive effects of these platforms on nurses' perceptions.

## INTRODUCTION

The recruitment of employees is of major importance for organizations, since human capital has the potential to be a key source of competitive advantage (Brymer *et al.* 2014). Different industries are facing increasing competition among organizations to attract qualified human capital (McDonnell 2011). In several countries and regions, healthcare organizations face challenges to attract sufficient numbers of nurses (Buchan & Campbell 2013). There are multiple causes for these shortages, including unfavorable working conditions, constrained resources (Buchan & Aiken 2008) and population ageing, which creates a surge in the demand for care (Juraschek *et al.* 2012). Although the shortage of health care workers does not occur in every region or country (e.g., Galbany-Estragués & Nelson 2016), it is globally a widespread phenomenon (Buchan & Campbell 2013). This study takes place in a Belgian context where the nursing shortage is indeed prevalent (Bourdon 2016, VDAB 2016).

One way to improve returns on recruitment investments is through employer branding. Research shows that employer brand perceptions affect how potential applicants react to the recruitment messages and practices of the organization (Collins & Kanar 2014). Thus, organizations aiming to attract applicants in high demand on the labor market, such as nurses, need to look for ways to promote a unique and favorable brand image in the minds of their target group.

Along these lines, online social media represent a promising new medium for employer branding and recruitment efforts (Nikolaou 2014, McFarland & Ployhart 2015). The use of social media has increased drastically in recent years (Kluemper *et al.* 2012). Surveys indicate that many nurses are also social media users (AMN 2013, Usher *et al.* 2014). Through this new recruitment channel, organizations can reach a vast audience of active and passive job seekers (Nikolaou 2014). An increasing number of organizations are investing in social media to communicate their employer brand and attract qualified applicants (EBI 2014,

Adecco 2015). For instance, many hospitals now have a social media profile that might influence how they are perceived by nurses considering applying for a job (Griffis *et al.* 2014). Despite the popularity of social media in practice, academic research in a recruitment context is limited (McFarland & Ployhart 2015, Roth *et al.* 2016).

There is some research that discusses social media use by nurses. For example, some authors advocate the use of social media for professional purposes such as leadership or external communication (Mannix *et al.* 2014, Moorley & Chinn 2016). Ethical and legal challenges associated with social media use, such as the disclosure of patient information, are also a topic of debate (Levati 2014). However, to the best of our knowledge, the effects of social media as an employer branding and recruitment tool on nurses have not been studied.

To guide hospitals and other organizations' recruitment practices and investment decisions, we need to know whether social media can have an impact on their perceived employer brand and attractiveness and how and why these effects might take place. In the current study, we chose a hospital as focal organization because in many regions hospitals face challenges in attracting nurses (Juraschek *et al.* 2012). It is therefore important for hospitals to be perceived as an attractive employer by this target group and to differentiate themselves from competing employers (Van Hoye 2012). This study contributes to the literature by examining the effects of visiting a hospital's social media profile on nurses' perceptions of the hospital's employer brand and attractiveness. Using media richness theory, we investigate interactivity and social presence as possible explanations for these effects. We included both Facebook and LinkedIn in our study, as these social media platforms are most often used for job search and recruitment (Nikolaou 2014). In addition, both nursing students and employed nurses were included in our sample, given that nursing recruitment often already starts during nursing studies (Reymen *et al.* 2015).

## BACKGROUND

### Employer Branding

Employer branding is defined as the process of creating and communicating a clear image of an organization as an attractive and distinctive place to work for both current and potential employees (Backhaus & Tikoo 2004). This study focuses on the image perceptions of potential nursing applicants. Research so far found that potential applicants' perceived employer brand is related to their application intentions and job acceptance decisions (Lievens & Slaughter 2016). Therefore, having a favorable and distinctive employer brand is an important asset for organizations. However, little is known about how the perceptions that constitute this influential employer brand can be created, managed, or improved through recruitment communication and practices (Slaughter *et al.* 2014, Lievens & Slaughter 2016).

To identify key dimensions of potential applicants' employer brand perceptions, prior research has applied the instrumental-symbolic framework (e.g., Lievens & Highhouse 2003, Van Hove 2012). According to this framework, an employer brand can be decomposed into instrumental and symbolic attributes (Lievens & Highhouse 2003). Instrumental dimensions are the perceived objective characteristics of organizations and jobs. This might include potential applicants' perceptions of a company's wage policy or the flexibility of the working hours. A study by Aiken *et al.* (2013) indicates that instrumental employment benefits can play an important role for nurses' attraction. It found that many nurses in 12 European countries are dissatisfied with their advancement opportunities, pay and so on and intend to seek a job in another hospital. Additionally, symbolic dimensions are the perceived subjective characteristics and are compared with personality traits. For instance, organizations can differ in the extent to which people perceive them as prestigious or innovative. Van Hove (2008) found that, in addition to instrumental dimensions, symbolic dimensions predicted nurses' intentions to recommend an organization as an employer. In the current study, both



instrumental and symbolic image dimensions were included in our conceptualization of potential applicants' employer brand perceptions.

### **Social Media**

Social media can be defined as digital platforms on which users can create a profile, connect with other users, generate and distribute content and engage in interactive communication (Boyd & Ellison 2007, McFarland & Ployhart 2015). A large part of the global population is active on social media. In 2016, LinkedIn had 433 million registered members (LinkedIn 2016) and Facebook had 1.9 billion daily active users (Facebook 2016).

There are many different social media platforms (Boyd & Ellison 2007, Musiał & Kazienko 2013) and since these differ with regard to the specific communication characteristics, this might translate into different user reactions (McFarland & Ployhart 2015). Therefore, we examine the effects of both Facebook and LinkedIn, the platforms that are most often used by job seekers as well as recruiters (Stepstone 2013, Adecco 2015). Facebook was initially designed for private purposes and LinkedIn for professional use, which translates in a particular architecture for each site and different prevailing norms (Papacharissi 2009).

Social media represent a unique context and differ significantly from more traditional communication sources, which might influence cognition and affect of its users (McFarland & Ployhart 2015). Therefore, when used in and by organizations, social media are also likely to have an impact on a variety of human resource management practices. However, there is very limited research to guide organizations on the use of these platforms (McFarland & Ployhart 2015, Roth *et al.* 2016).

### **Social Media and Recruitment**

Given the large amount of people active on social media and the limited costs of setting up a social media page, social media seem to be an ideal new vehicle for attracting both active and passive job seekers (Nikolaou 2014). Many organizations are aware of the

potential of these booming communication channels and are employing social media for recruitment and employer branding, but scientific research is lagging far behind (McFarland & Ployhart 2015, Roth *et al.* 2016).

So far, most studies focused on the screening of potential applicants' social media profiles by recruiters (e.g., Baert 2017, Davison *et al.* 2016). With regard to organizations' profiles, some preliminary scientific evidence suggests that they can positively affect potential applicants' general perceptions of corporate image and reputation (Davison *et al.* 2011, Sivertzen *et al.* 2013, Kissel & Büttgen 2015). However, we need to know whether social media can have an impact on organizations' image and attractiveness *as an employer* and how and why these effects might take place. Hence, we seek to understand how and why visiting a hospital's Facebook or LinkedIn profile affects nurses' perceptions of the hospital's instrumental and symbolic employer brand image dimensions as well as their attraction to the hospital as an employer. We rely on media richness theory to develop our hypotheses.

### **Media Richness Theory**

According to the media richness theory (Daft & Lengel 1986), richer media are media that are more capable of conveying complex and ambiguous information and are therefore more capable of successfully transmitting persuasive messages such as recruitment communication (Allen *et al.* 2013). Dineen and Allen (2013) discuss that the rise of the internet changed the recruitment process, since it allows to reach a larger audience without having to compromise much in terms of communication richness. The internet has increased the opportunities for interactive communication, which is certainly true for social media. Individuals can interact with the organization by communicating through private messages, liking a post or by writing a reaction on a post of the organization. Social media do not only allow for communication between the organization and the individual, but also make the interactions of others with the organization visible. We thus expect that social media are able to convey rich information

because there are a lot of possibilities for interactive communication (McFarland & Ployhart 2015), which might positively influence nurses' perceptions of the hospital's employer brand image and attractiveness because of increased involvement and more activated information processing (Allen *et al.* 2013, Dineen & Allen 2013).

Related to media richness theory is the concept of social presence (Short *et al.* 1976). Social presence is also a characteristic of communication media and can be defined as the feeling of humanness, interpersonal warmth and proximity when using a certain medium for communication (Allen *et al.* 2013). Two studies that investigated the impact of social presence on recruitment outcomes operationalized the concept as one of the dimensions of media richness (Allen *et al.* 2004, Allen *et al.* 2013). They proposed that media that are richer, might also more easily convey a sense of proximity and therefore be perceived as enabling more social presence. These studies found indications that social presence is related to improved attitudes, intentions and behavior related to joining the organization.

We expect social media to be perceived as conveying a greater sense of social presence, because their primary purpose is to create and maintain relations between individuals (Boyd & Ellison 2007). Social media are likely to be perceived as rather informal communication channels, which might result in a more friendly and personal communication style. Information presented in this way might be more persuasive and more attractive, positively influencing an organization's attractiveness and employer brand image.

Thus, we propose that nurses visiting a hospital's Facebook or LinkedIn page will have more positive perceptions of the hospital's employer brand image and attractiveness and that these effects will be mediated by the perceived interactivity and social presence of the social media platform.

## THE STUDY

### Aim

The aim of the study was to examine whether hospitals' presence on social media can positively affect nurses' perceptions of employer brand image and organizational attractiveness and to find out whether these effects can be explained by interactivity and social presence. More specifically, the following hypotheses were tested.

*Hypothesis 1:* Exposure to a hospital's profile on Facebook will be positively associated with nurses' perceptions of (a) employer brand image and (b) organizational attractiveness.

*Hypothesis 2:* Exposure to a hospital's profile on LinkedIn will be positively associated with nurses' perceptions of (a) employer brand image and (b) organizational attractiveness.

*Hypothesis 3:* Interactivity will mediate the relationship of exposure to a hospital's profile on Facebook with nurses' perceptions of (a) employer brand image and (b) organizational attractiveness.

*Hypothesis 4:* Interactivity will mediate the relationship of exposure to a hospital's profile on LinkedIn with nurses' perceptions of (a) employer brand image and (b) organizational attractiveness.

*Hypothesis 5:* Social presence will mediate the relationship of exposure to a hospital's profile on Facebook with nurses' perceptions of (a) employer brand image and (b) organizational attractiveness.

*Hypothesis 6:* Social presence will mediate the relationship of exposure to a hospital's profile on LinkedIn with nurses' perceptions of (a) employer brand image and (b) organizational attractiveness.

### Design

We applied a between-subjects experimental design with three conditions to test our hypotheses. Participants were randomly assigned to one of the conditions. In every condition, participants first read a general recruitment message that was derived from the hospital's website and copy-pasted into the survey (Figure 1). The control condition only received this message. A second condition received this message and was requested to visit and go through the Facebook page of the hospital. A direct link was provided that opened a pop-up window. Respondents were asked to close that window and return to the survey, once they were done reading some information on the social media page. The third condition was exactly the same, except that people were provided a link to the LinkedIn profile of the hospital.

To increase external validity, we selected an existing Belgian hospital possessing both a Facebook and LinkedIn profile. The content of both pages was very similar at the time of the survey. Examples of messages on these pages were awards won by the hospital, links to job vacancies and invitations for certain healthcare-related information sessions.

### **Participants**

Our target population consists of nurses who can be considered (future) potential applicants for hospitals that are trying to attract nurses. Given that new job market entrants as well as employed job seekers represent important target groups for organizations' recruitment activities (Boswell *et al.* 2012), both nursing students and employed nurses were included in our convenience sample of potential applicants. An exclusion criterion was that nurses could not be currently employed at the focal hospital. It was not required for the participants to have a Facebook or LinkedIn profile.

We contacted all Bachelor's and postgraduate students ( $n= 488$ ) enrolled at one vocational college located in the same region as the hospital<sup>1</sup>. Three random groups of students were created through an online learning platform, corresponding to our three conditions. Every group was sent an e-mail with a link to one of three surveys in Qualtrics.

Employed nurses were contacted using a snowball effect. E-mails were sent to two nursing schools, a hospital and to personal contacts, which were all situated in the same region as the hospital. We asked them to forward the survey to (other) employed nurses. For the employed nurses we created one survey link and Qualtrics randomly assigned participants to one of the three conditions.

### **Data collection**

In December 2015, 488 nursing students were sent an e-mail inviting them to participate in an online questionnaire. One week later, a reminder was sent. A third reminder was sent the first week of January 2016. In total, 288 surveys were started, yielding a response rate of 59%. Of these responses, 170 were not used, mostly because of incomplete answers (responses where less than 15% of the questions were completed were removed) and because some respondents did not click on the link to visit the assigned social media site. The remaining 118 usable responses (41%) were used for analyses.

Regarding the employed nurses, data were collected from the end of February until the beginning of April 2016. Because we relied on respondents to forward the survey, we could not calculate the response rate. Of the 218 surveys started, 94 (43%) were included in the analyses. We removed cases where less than 15% of the questions were answered and where the respondent did not click on the link. Additionally, we excluded 7 participants that were currently employed at the focal hospital (3%).

The different steps of the survey are shown in Table 1. First, we assessed respondents' preliminary familiarity with the organization. In a second step, people were assigned to one of the three conditions. Afterwards, participants assessed organizational attractiveness, interactivity, social presence and employer brand. Finally, they were asked to provide some demographic information.

### **Measures**

All measures and items are displayed in Table 1, as well as the internal consistencies (alpha's ranging from .65 to .94).

*Organizational attractiveness.* Three items, based on measures from Lievens *et al.* (2005), were used to measure the hospital's perceived attractiveness as an employer.

*Interactivity.* Interactivity assessed the perceived possibility of feedback and interactive communication. Three items were based on existing measures (Allen *et al.* 2004, Gao *et al.* 2010).

*Social presence.* Social presence measured the extent of proximity, interpersonal warmth and friendliness with which the information was provided. It was measured with three items derived from the media richness scale by Allen *et al.* (2004).

*Employer brand image.* Constructs and items used to measure employer brand were based on different previous studies applying the instrumental-symbolic framework (Lievens & Highhouse 2003, Lievens 2007, Van Hoye 2008).

*Explanatory variables.* We created two dummy variables to capture the three experimental conditions in our design. The first dummy variable is called *Facebook* from now on and was coded as follows: 1=Facebook condition and 0=control group and LinkedIn condition. The second dummy variable is called *LinkedIn* and was coded 1 for the LinkedIn condition and 0 for the two other conditions. When added together in the regression analyses, this coding allows us to compare the effect of each social media platform against the control group (Field 2009).

*Control variables.* Based on previous research we controlled for prior familiarity with the hospital (Brooks *et al.* 2003). *Familiarity* was measured with three items based on Lievens *et al.* (2005). Applicant group was also included as control variable (1= employed nurse, 0=student).

## **Ethical considerations**

The ethics committee of our university approved this study. Each questionnaire started with a message outlining that participation was voluntary and that answers were anonymous and used for research purposes only. It was stated that clicking on the link to start the questionnaire was indicative of consent to participate. No information of the participants' social media profiles was collected, nor did we manipulate the organization's profile.

### **Data analysis**

SPSS 22 was used to analyze the data. We applied multiple linear regression analyses to test the main effects. For the mediation effects, we used the Hayes Process Macro in SPSS to apply a bootstrapping method which allowed us to test the indirect effects of Facebook and LinkedIn on the outcome variables through the proposed mediators (Preacher & Hayes 2004).

### **Validity, reliability and rigor**

As reported above, we computed Cronbach's alphas to assess the reliability of all scales. A confirmatory factor analysis was performed with MPlus version 7.4 to validate the employer brand image factors. For the six instrumental factors, it demonstrated a satisfactory model fit:  $\chi^2(89)=153.401, p<.001$ ; RMSEA=.060; CFI=.957. For the five symbolic dimensions it demonstrated an acceptable model fit:  $\chi^2(94)=192.225, p<.001$ ; RMSEA=.072; CFI=.930 (Browne & Cudeck 1992, Medsker *et al.* 1994).

## **RESULTS**

### **Sample**

Of the 212 respondents, the mean age was 28 years (*SD* 10.12) and 85.5% were women. In this sample, 44% of the respondents were employed Belgian nurses with work experience between less than one year and 40 years (*mean*=12.36, *SD* 9.43). The mean age of the employed nurses was 36 years (*SD* 9.58) and 79.7% were female. The other 118 participants were nursing students. Of the students, 90.3% were female and their average age was 21 years



(*SD* 2.87). Of all the participants, 95.1% indicated they had a profile on Facebook and 10.4% had one on LinkedIn<sup>2</sup>.

### **Analysis and results**

Table 2 reports the means, standard deviations and bivariate correlations for all study variables.

#### *Multiple Linear Regression Analyses*

Hypotheses 1a and 2a suggested a positive association of the explanatory variables Facebook and LinkedIn with the employer brand dimensions as outcome variables. To test this, twelve regression analyses were performed with the control variables, applicant group and familiarity added in the first step and Facebook and LinkedIn in the second step.

First we examined the effect on the instrumental dimensions. Results are displayed in Table 3. Nurses in the Facebook condition reported more positive perceptions of the hospital's advancement opportunities ( $\beta=.15, p<.05$ ), task diversity ( $\beta=.14, p<.05$ ) and work atmosphere ( $\beta=.14, p<.05$ ). Nurses in the LinkedIn condition showed more positive perceptions of advancement ( $\beta=.29, p<.01$ ), task diversity ( $\beta=.21, p<.01$ ), atmosphere ( $\beta=.17, p<.05$ ) and work-life balance ( $\beta=.23, p<.01$ ). Neither Facebook or LinkedIn was significantly associated with meaningfulness or pay and we did not find a significant effect of Facebook on work-life balance.

Next, we analyzed the symbolic dimensions (Table 3). Facebook significantly positively predicted nurses' perceptions of competence ( $\beta=.24, p<.01$ ), innovativeness ( $\beta=.22, p<.01$ ) and sincerity ( $\beta=.22, p<.01$ ). Regarding LinkedIn, significant positive associations were found with competence ( $\beta=.25, p<.01$ ) and innovativeness ( $\beta=.22, p<.01$ ). LinkedIn had no significant effect on sincerity. Facebook nor LinkedIn had a significant effect on prestige and robustness.

In summary, Facebook had a significant positive effect on three out of six instrumental dimensions and three out of five symbolic dimensions. We can conclude that viewing a hospital's profile on Facebook can have a significant positive impact on employer brand perceptions, but not on all dimensions. Hypothesis 1a is partially supported. LinkedIn had a significant positive effect on four instrumental dimensions and two symbolic dimensions. Hypothesis 2a is thus also partially supported.

We hypothesized a positive effect of Facebook and LinkedIn on nurses' perceived organizational attractiveness (Hypotheses 1b and 2b). To test these hypotheses, we conducted another regression analysis with attractiveness as the outcome variable, the explanatory variables were the same as described above. The results are depicted in Table 3 and show that Facebook was positively related to attractiveness ( $\beta=.19, p<.01$ ), but LinkedIn was not. Consequently, Hypothesis 1b was supported and 2b was not.

#### *Bootstrapping procedure*

Hypotheses 3a and 4a suggested a mediation of the relation of nurses' exposure to the social media platform with perceived employer brand by interactivity and Hypotheses 5a and 6a proposed a mediation by social presence. A bootstrapping procedure was used to test the indirect effect of social media platform on the perceived employer brand attributes through the mediators social presence and interactivity. The unstandardized indirect effects and the 95% confidence intervals were computed for each of 10,000 bootstrapped samples and are listed in Table 4 (Preacher & Hayes 2004). Results show that social presence mediated the effect of both Facebook and LinkedIn on almost all the employer brand dimensions, thus supporting Hypotheses 5a and 6a. However, interactivity only mediated the effect of both Facebook and LinkedIn on work-life balance, as well as their effect on competence. Support for Hypotheses 3a and 4a is thus rather limited.

Hypotheses 3b and 4b proposed a mediation by interactivity of the effect on organizational attractiveness. Hypotheses 5b and 6b proposed a mediation by social presence. Again, we tested the indirect effect of Facebook and LinkedIn on the hospital's attractiveness through social presence and interactivity by using a bootstrapping procedure (Preacher & Hayes 2004). Results are also displayed in Table 4. The effect of both Facebook and LinkedIn was mediated by social presence, but not by interactivity. Consequently, Hypotheses 5b and 6b are supported, while Hypotheses 3b and 4b were not.

## DISCUSSION

Research has started to look at the implications and opportunities of social media for the nursing profession (e.g., Moorhead *et al.* 2013). While many hospitals seem to have social media pages (Griffis *et al.* 2014), as far as we know, no study has investigated the impact of a hospital's social media use on nurses' perceptions of the organization as a potential employer, even though this might be of use to help organizations deal with hard-to-fill vacancies (Juraschek *et al.* 2012). Our results show that a hospital's social media page may be a useful recruitment tool because it can have a positive effect on nurses' perceptions of the employer brand and organizational attractiveness. This is good news for organizations trying to attract potential applicants. In addition, we found that in the context of social media, social presence plays an important role in influencing potential applicants' perceptions.

Sivertzen *et al.* (2013) found that self-reported exposure to information about an organization on social media was positively associated with overall corporate reputation. Our study now shows that seeing a social media profile can change perceptions of the organization as an employer as well. Facebook and LinkedIn positively influenced a majority of the employer brand dimensions. An organization's social media page can thus be used by potential applicants to make inferences about several aspects of organizations (Connelly *et al.* 2011) regarding both instrumental and symbolic aspects (Lievens & Highhouse 2003).

Additionally, we found that social media can improve nurses' organizational attraction. In this study, Facebook had a significant positive effect, but LinkedIn did not, even though the content was similar. This indicates that the impact strength of different social media on potential applicants' perceptions may differ. It may be that potential applicants have different expectations of, or look for different information on, each platform. Future research might examine which platforms are more effective and why. However, since social media are a quickly evolving area (Ferguson 2013), we believe that future research should not merely focus on specific platforms, but mostly on the characteristics that explain their effects and that can be applied to future new platforms.

Along these lines, we found that the positive effects of social media were mostly explained by social presence. This feeling of warm, friendly and interpersonal communication may be an important strength of social media and should be included in future research which compares different recruitment channels, including social media. Communication on social media may be perceived as personal because people's perceptions are influenced by the platform itself of which the primary goal is to maintain relations (Boyd & Ellison 2007). However, it might be that the manner that the hospital employed social media, was "socially present", thus implying that social presence might not be attributed entirely to the platform itself, but may also depend on the specific content that is shared. If this is the case, organizations should try to create content that is perceived as kind, warm and personal, e.g. a personal story of one of the employees and use accessible and friendly language rather than merely business-oriented or aloof. Future research should investigate the difference in perceived social presence between different types of content and should explore ways where organizations can improve the perceived social presence of their recruitment communication.

Finally, interactivity only explained the effect of social media on two employer brand dimensions. It might be that interactivity plays a more important role for other types of

potential applicants or in another phase of the recruitment process (Van Hoye & Saks 2008). Therefore, future research should explore the effect of interactivity further in other contexts.

Furthermore, some significant positive effects on employer brand dimensions were left unexplained. Therefore, future research may examine which other underlying processes are at play. Based on previous literature and empirical studies, credibility theory might be useful to further examine the effects of social media on potential applicants (e.g., Cable & Turban 2001, Eisend 2004). McFarland and Ployhart (2015) suggest that social media content is publicly accessible, which allows for more scrutiny. We propose that this might improve potential applicants' credibility perceptions of the information provided, leading to more positive attitudes toward the organization (Van Hoye, 2012).

### **Limitations**

This study has some limitations. A first limitation is the experimental design, which might influence how people process the given information. It might be that participants processed information more consciously than they would in reality, because they knew that they had to fill in questions about the organization afterwards. Additionally, because respondents were instructed to visit a particular platform, we do not know whether they would actually come across this organizational page in reality.

Other limitations concern our use of a convenience sample. Moreover, we were not able to compute a response rate for the employed nurses because we applied a snowball technique. Furthermore, it is possible that some respondents had previous work experience in the focal hospital. This might influence the effect of social media on their perceptions. However, since it is realistic that organizations also aim to re-recruit former employees (e.g., Shipp *et al.* 2014), we believe this is no major issue. We control for familiarity, which takes in account past experiences with the hospital to some extent. Future research could use a fictitious company to completely rule out any previous experience with the organization.

In addition, caution is warranted when generalizing this study's findings to other contexts and other types of potential applicants and organizations. Our sample is collected in a region where there is a shortage of nurses (VDAB, 2016). Future research should also study social media for employer branding and recruitment purposes in other contexts, since nurses that are more concerned about finding a job, might respond differently. Further, it is possible that specific social media platforms are more effective for certain profiles or certain organizations. It might also be that social presence is perceived as more important by nurses than by, for example, accountants. Research indicates that people who choose for the nursing profession are generally caring and sociable (Eley *et al.* 2012), therefore, they may place more weight on this. In addition, it is important for organizations to know on which social media their targeted profiles are active.

### **CONCLUSION**

Many organizations are active on social media and are employing these platforms for recruitment and employer branding. This study indicates that hospitals' investments in social media can be justifiable because they can have a positive effect on potential applicants' organizational attractiveness and employer brand perceptions. At the very least, our study shows that future research into this domain is warranted. Furthermore, it shows that social presence plays an important role in shaping nurses' employer perceptions through social media. Future research should study what the determinants are of social presence perceptions and which types of social media content are most effective in influencing nurses' perceptions of potential employers.

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### NOTES

1. To assess the external validity of our design, we explored whether hospitals in Belgium are present on Facebook and LinkedIn. Therefore, we took a sample of 10 hospitals located in the same region as the hospital included in this study. Of these, seven had a Facebook profile that is updated regularly, one had a Facebook page that was not up-to-date. The eight hospitals who had a Facebook page, also had a LinkedIn profile. Two hospitals regularly posted messages on LinkedIn, but the others did not, they only had a general description and no regular posts or only posted vacancies. Two hospitals did not have a Facebook or LinkedIn profile.

2. We also ran the regression analyses with two dummy variables included to control for the effect of the participant having a personal Facebook profile and having a LinkedIn profile. Since these were not significant (except for 'having a LinkedIn profile' on advancement as the dependent variable) and did not change any results significantly, we decided to omit these to improve statistical power.

Table 1  
*Content and Flow of the Study's Survey*

Measure	$\alpha$	No.	Questions/Items
Familiarity	.80	3	- I have already heard about this organization - I know what this organization stands for - I know what this organization has to offer as an employer
Current employee of focal hospital <sup>a</sup>			Are you currently an employee at XXX?
Random allocation to one of three conditions			
			1. Control condition: Recruitment message (see Figure 1)
			2. Facebook condition: Recruitment message & link to the hospital's Facebook profile
			3. LinkedIn condition: Recruitment message & link to the hospital's LinkedIn profile
Attractiveness	.87	3	- This organization seems like a good place to work - I would recommend this organization as an employer to others - I would like to work for this organization
Social Presence	.67	3	- The information was presented in a personal manner - I felt addressed in a warm manner - The information was presented in a friendly manner
Interactivity	.90	3	- There were opportunities for interaction - You could communicate with the organization - It was possible to provide or receive feedback
Employer brand dimensions			
Instrumental attributes <sup>b</sup>			
Pay	.88	3	- Within the organization, wages are generally high - This organization offers interesting benefits (=extra-legal advantages such as company car, cellphone, ...) besides the wage - Within this organization one can make a good living
Advancement	.87	2	- This organization offers possibilities to advance - The organization offers opportunities for promotion
Task diversity	.86	3	- The organization offers a wide variety of tasks - The organizations offers an interesting range of jobs - The organization offers challenging work
Atmosphere	.91	2	- In this organization there is a good atmosphere among colleagues - Within this organization there is a pleasant work environment
Meaningfulness	.94	3	- Working for this organization gives people the opportunity to help others - The organization offers the opportunity to make yourself useful to others - I feel that my work in this organization would matter



Measure	$\alpha$	No.	Questions/Items
Work-life balance	.88	3	- This organization allows to optimally combine work with other domains of life such as family and hobbies - The organization acknowledges the importance of other areas of life (family, ...) of the employee. - The organization allows flexibility of work according to the needs of other areas of life (family, hobby, ...)
Symbolic attributes <sup>c</sup>			
Competence	.83	4	intelligent, successful, reliable, demonstrating craftsmanship
Innovativeness	.80	3	daring, creative, innovative
Prestige	.65	3	prestigious, renowned, highly regarded
Robustness	.65	3	robust, masculine, tough
Sincerity	.80	3	honest, social, warm
Demographics			Sex Age Do you have a profile on LinkedIn? Do you have profile on Facebook?

<sup>Note</sup> The items were translated from Dutch and all (except the demographics) were rated on a 5-point rating scale ranging from 1=*completely disagree* to 5=*completely agree*.

<sup>a</sup> This question was only asked in the survey that was sent to the employed nurses.

<sup>b</sup> Factor analysis indicated an acceptable fit:  $\chi^2(89)=153.401$ ,  $p=.000$ ; RMSEA=.060; CFI=.957.

<sup>c</sup> Factor analysis indicated an acceptable fit:  $\chi^2(94)=192.225$ ,  $p=.000$ ; RMSEA=.072; CFI=.930.

Table 2  
Means, Standard Deviations, and Correlations of Study Variables

Variable	Count	M	SD	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
1. Facebook <sup>ac</sup>	44 (20.8%)			—																
2. LinkedIn <sup>ac</sup>	57 (26.9%)			-.31**	—															
3. Applicant group <sup>bc</sup>	94 (44.3%)			-.01	.04	—														
4. Familiarity		3.95	.94	.08	-.01	.08	—													
5. Social Presence		3.50	.62	.22**	.16*	-.30**	.04	—												
6. Interactivity		2.93	.90	.33**	.30**	-.11	.06	.55**	—											
7. Pay		2.94	.71	.03	.09	-.38**	-.02	.32**	.27**	—										
8. Advancement		3.59	.79	.08	.23**	-.23**	.16*	.24**	.22**	.64**	—									
9. Task diversity		3.60	.56	.09	.15*	-.31**	.15*	.41**	.33**	.47**	.42**	—								
10. Atmosphere		3.27	.87	.11	.11	-.39**	.15*	.34**	.16*	.53**	.61**	.34**	—							
11. Meaningfulness		3.88	1.00	.11	.06	-.49**	.07	.28**	.14	.50**	.57**	.38**	.75**	—						
12. Work-life balance		3.22	.64	.04	.18*	-.28**	.03	.43**	.40**	.35**	.31**	.37**	.36**	.18*	—					
13. Competence		3.85	.53	.18*	.16*	-.35**	.21**	.40**	.39**	.38**	.54**	.47**	.50**	.49**	.45**	—				
14. Innovativeness		3.60	.60	.17*	0.13	-.33**	0.12	.41**	.35**	.46**	.39**	.46**	.37**	.35**	.38**	.49**	—			
15. Prestige		3.42	.54	.00	.11	-.25**	.09	.32**	.22**	.31**	.30**	.33**	.37**	.32**	.37**	.48**	.43**	—		
16. Robustness		2.80	.56	-.01	.07	-.06	-.03	.20**	.12	.29**	.05	.15*	.16*	.03	.18*	.12*	.21**	.26**	—	
17. Sincerity		3.79	.61	.19*	.05	-.31**	.11	.46**	.29**	.40**	.45**	.46**	.54**	.53**	.38**	.72**	.52**	.41**	.08	—
18. Attractiveness		3.67	.67	.17*	.03	-.40**	.13	.52**	.30**	.37**	.30**	.40**	.46**	.39**	.37**	.57**	.46**	.33**	.16	.63**

Note. <sup>a</sup> Two dummy variables were created, representing the three conditions of our experimental design.

<sup>b</sup> Applicant group was coded with 0 = students 1= employed nurses

<sup>c</sup> Categorical variables

\*  $p < .05$ . \*\*  $p < .01$ .

Table 3

*Hierarchical Regression Analyses*

	Outcome Variables											
	Instrumental						Symbolic					Attractiveness
	Pay	Advancement	Task	Atmosphere	Meaningful	Work-life	Competent	Innovative	Prestige	Robust	Sincerity	
Control variables												
Applicant group <sup>a</sup>	-.38**	-.25**	-.33**	-.41**	-.49**	-.30**	-.37**	-.35**	-.26**	-.07	-.32**	-.42**
Familiarity	-.01	.16*	.15*	.16*	.08	.03	.21**	.11	.10	-.03	.11	.15*
Explanatory variables												
Facebook	.05	.15*	.14*	.14*	.13	.11	.24**	.22**	.03	.02	.22**	.19**
LinkedIn	.12	.29**	.21**	.17*	.12	.23**	.25**	.22**	.13	.08	.14	.11
$\Delta R^2$	.01	.08**	.05**	.03*	.02	.05**	.08**	.07**	.02	.01	.05**	.03*
$R^2$	.16**	.16**	.17**	.22**	.27**	.13**	.26**	.20**	.09**	.01	.16**	.22**
Adjusted $R^2$	.14	.14	.15	.20	.25	.11	.24	.18	.07	-.01	.14	.21

*Note.* The values in the table are standardized regression coefficients for 12 regression analyses.

Results displayed are those of the final step.

The  $\Delta R^2$  displayed is the  $\Delta R^2$  for the last step.  $R^2$  is for the total model.

<sup>a</sup> Applicant group was coded as 0 = students 1= employed nurses.

\*  $p < .05$ , \*\* $p < .01$

Table 4  
*Indirect Effects of Facebook and LinkedIn on Employer Brand Dimensions and Organizational Attractiveness through Social Presence and Interactivity*

Outcome variables	Explanatory Variables	Social Presence		Interactivity	
		Indirect effect	95% CI	Indirect effect	95% CI
<b>Instrumental</b>					
Pay	Facebook	.07	[.01, .15]	.15	[-.002, .29]
	LinkedIn	.06	[.01, .13]	.12	[-.003, .24]
Advancement	Facebook	.05	[-.02, .13]	.02	[-.14, .16]
	LinkedIn	.04	[-.01, .12]	.02	[-.13, .14]
Task diversity	Facebook	.10	[.04, .20]	.08	[-.02, .21]
	LinkedIn	.09	[.03, .17]	.07	[-.02, .17]
Atmosphere	Facebook	.14	[.07, .26]	-.10	[-.28, .05]
	LinkedIn	.12	[.05, .23]	-.08	[-.24, .04]
Meaningfulness	Facebook	.09	[-.001, .21]	-.07	[-.28, .13]
	LinkedIn	.07	[-.001, .17]	-.06	[-.23, .10]
Work-life	Facebook	.13	[.05, .22]	.19	[.07, .34]
	LinkedIn	.10	[.04, .18]	.16	[.07, .29]
<b>Symbolic</b>					
Competence	Facebook	.06	[-.001, .14]	.12	[.03, .23]
	LinkedIn	.05	[.002, .11]	.10	[.02, .20]
Innovativeness	Facebook	.11	[.03, .21]	.11	[-.01, .25]
	LinkedIn	.08	[.02, .18]	.09	[-.01, .21]
Prestige	Facebook	.09	[.03, .18]	.06	[-.05, .18]
	LinkedIn	.07	[.02, .15]	.05	[-.05, .15]
Robust	Facebook	.09	[.02, .18]	.03	[-.12, .16]
	LinkedIn	.07	[.02, .15]	.02	[-.10, .13]
Sincerity	Facebook	.17	[.09, .28]	.04	[-.08, .18]
	LinkedIn	.13	[.06, .24]	.03	[-.07, .15]
Attractiveness	Facebook	.20	[.11, .31]	.02	[-.08, .14]
	LinkedIn	.16	[.08, .27]	.02	[-.08, .12]

*Note.* CI = Confidence Interval

The unstandardized indirect effects and the 95% confidence intervals were computed for each of 10,000 bootstrapped samples.

Control variables applicant group and familiarity were also entered in the model.

*XXX is a modern hospital in the green suburbs of YYY with 631 beds, more than 1650 staff members, and 180 doctors. The hospital always thrives to achieve a better, more comprehensive, and modernized patient care. Therefore, we are looking for motivated and talented personnel to contribute to this goal. Do you choose to work in an exciting organization in which you can develop your qualities to the fullest? Then you should definitely apply at XXX.*

Figure 1. Recruitment information from the hospital website, translated from Dutch to English