

Original Research

Open Wide and We'll See How You've Done: Proposing and Testing a Model of Injunctive Normative Influence in Dentist-Patient Interactions about Flossing

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ABSTRACT

The role of injunctive norms in promoting healthy behaviors is explored and a model of injunctive normative influence (i.e., MINI) is proposed and tested. Health communication is employed as the context to test the model focusing on dentist-patient communication about flossing behavior. The model explores how messages from sources with legitimate power (i.e., dentists) promote injunctive norms which, in turn, promote healthy behaviors. Declarative (i.e., messages indicating normative behavior) and evaluative (i.e., messages assessing adherence to norm) communication are considered for their effect on injunctive norms. The effect of injunctive norms on behavioral intent is posited to be mediated by guilt. A test of the model employing 319 (143 men and 176 women) participants was performed looking at perceptions of dentist-patient communication, flossing injunctive norms, guilt related to flossing behavior, and behavioral intent to floss. All direct links proposed in the model are supported but the indirect link from declarative communication to behavioral intent is not significant. Unanticipated direct links emerge from evaluative communication to guilt and behavioral intent. Overall, results are largely supportive of the proposed model though evaluative communication plays a greater role than anticipated while declarative communication has a more limited scope.

KEYWORDS

flossing, dentist-patient communication, injunctive norms, normative influence, health communication

Decades of social science research indicates that people are influenced by social norms (e.g., Chung & Lapinski, 2023, Cialdini et al., 1991, Deutsch & Gerard, 1955, Rimal & Real, 2005). Social norms can be classified as descriptive or injunctive (Cialdini et al., 1990). Descriptive norms reflect what behavior is typical, common, or normal. In contrast, injunctive norms invoke beliefs about what

behavior is appropriate or what behavior merits disapproval. Cialdini et al. (1990) refer to the distinction as norms of what *is* (i.e., descriptive norms) compared to norms of what *ought* (i.e., injunctive norms). Generally, normative influence is based on the anticipation that people try to do what is common (i.e., descriptive norms) and/or appropriate (i.e., injunctive norms).

Rimal and Real (2005) and others (e.g., Carcioppolo et al., 2017; Henningsen & Henningsen, 2020; Lapinski et al., 2007), have developed and employed the theory of normative social behavior (i.e., TNSB) to describe the process by which descriptive norms function to influence behavior. However, no parallel theory has been developed to explore injunctive normative influence as a principal driver of behavior. The current manuscript seeks to address this by proposing and testing the model of injunctive normative influence (i.e., MINI). Our test of the model will involve an application to flossing behavior.

Numerous studies in communication have considered how communication can promote flossing behavior (e.g., Dillard & Shen, 2005, 2018; Meczkowski et al., 2016; Nan, 2017; Seo et al., 2013). Flossing is one of several interdental cleaning techniques recommended by dental professionals (American Dental Association, 2023).

Recent findings indicate flossing with toothbrushing significantly reduces gingival inflammation above what is achieved by toothbrushing alone (Londero et al., 2022). Furthermore, flossing and other forms of interdental cleaning have been linked to reduced risk of cardiovascular events (e.g., Reichert et al., 2015). In the context of flossing behavior, we propose to explicate and test the model of injunctive normative influence (i.e., MINI).

Proposing a Model of Injunctive Normative Influence

Human behavior is influenced by two types of norms: Descriptive norms (i.e., what the majority of people actually do) and injunctive norms (i.e., what the majority of people believe should be done) (Cialdini et al., 1990). Park and Smith (2007) further divide these categories into personal and societal descriptive and injunctive norms. At a personal level, descriptive norms reflect what those close to a person do and injunctive norms reflect what those people approve of. At the societal level, descriptive norms represent general behaviors and injunctive norms reflect general perceptions of approval. Park and Smith also identify subjective norms as normative pressure from one's reference group. In the current study, we focus on societal injunctive norms.

According to the focus theory of normative conduct (Cialdini et al., 1990), descriptive norms and injunctive norms invoke different mechanisms to influence behavior. Descriptive norms promote a social proof process, providing evidence of optimal behaviors in a given situation. Social proof relies on the assumption if a majority of people do something, it is likely the optimal thing to do. Injunctive norms, on the other hand, rely on a social approval mechanism to determine what behaviors are most acceptable.

An injunctive behavioral norm exists when the individual believes the majority approve of a specific behavior and that social approval is conditioned upon following the norm. In the current study, we look at how injunctive norms predict flossing behavior. Both descriptive and injunctive norms can influence health behaviors such as flossing. However, we will focus on injunctive norms for several reasons. First, descriptive norms rely on the proposition that majority of people floss. However, available data indicates the majority flossing position is to not floss every day (Fleming et al., 2018; Nascimento

et al., 2023). This makes use of descriptive norms problematic. Second, dentist-patient communication involves an evaluative component that should make injunctive norms salient.

We propose MINI to explicate how injunctive norms work beginning with communication behaviors that predict injunctive norms and following through to look at the mechanism by which injunctive norms influence behavioral intent. We begin by considering how injunctive communication predicts injunctive norms.

Injunctive Communication

Rimal and Real (2003) found communication about behavior influences peoples' perceptions of both descriptive and injunctive norms. Increasing communication about behavior was associated with normative beliefs. In families, Thomas and Hovick (2021) found that families with a communication orientation were more likely to promote injunctive norms about health related behaviors than those who were less communicative. While these studies indicate that the amount of communication about a topic plays an important role in developing norms, we focus on the nature of communication that promotes injunctive norms.

Consistent with the findings of Rimal and Real (2003) we argue that injunctive normative influence is rooted in *injunctive communication*. Because injunctive norms invoke a social approval mechanism (e.g., Cialdini et al. 1990), injunctive communication should promote two key aspects of behavior needed to develop injunctive norms: Communication declaring what behavior merits social approval (i.e., declarative communication) and communication indicating that the behavior can be evaluated (i.e., evaluative communication).

Declarative Communication

We argue the first way that injunctive communication is used to develop injunctive norms is by indicating which behavior or behaviors are appropriate (i.e.,

what should a person do?). In essence, injunctive norms are predicted by declarative communication: statements or observations of what one should, or should not, do. Declarative communication is reflected in the ways that scholars have evoked injunctive norms in past research.

Commonly, injunctive norms are manipulated by providing communication of what the appropriate standard for behavior is. For example, Cialdini et al. (2006) used signs to provide a direct statement indicating what behavior was either proscribed or prescribed to invoke an injunctive norm about removing pieces of petrified wood from a park. Schultz et al. (2007) promoted an injunctive norm in electricity usage statements mailed to consumers by indicating approval or disapproval using a smiley face, for lower than normal, or a frowny face, for higher than normal, household electricity consumption. Jacobson et al. (2011), provided direct information about what most people, facing the same situation in the past, had indicated should be done in that circumstance. In each case, an indicator of what is appropriate behavior is provided and assumed to establish an injunctive norm.

As these examples, and others (e.g., Cialdini et al., 1990; Mollen et al., 2013; Ryoo & Kim, 2023), demonstrate, injunctive norms are instilled by communication indicating the socially appropriate behavior. In the current study, we focus on declarative communication in the dentist-patient interaction. Melnyk et al. (2010), in a meta-analytic review, found that the effects of injunctive norms function similarly from authority figures as from other sources or normative information. This indicates the applicability of using dentist-patient communication.

In the case of flossing, dentist-patient communication can serve to indicate that flossing is considered the appropriate dental hygiene behavior. Dentists' declarative communication about flossing (i.e., you should floss) to patients

should predict formation of injunctive norms. The first premise of MINI is that declarative communication about the importance of behavior will serve to promote injunctive norms. Our first hypothesis tests this premise in the dentist-patient context:

- H1: Dentist declarative communication about the importance of flossing will be positively associated with a pro-flossing injunctive norm.

Evaluative Communication

In addition to prescribing certain behaviors, communication can indicate whether behaviors are being, or are capable of being, monitored. Evaluative communication indicates whether others can recognize performance of the behaviors that can influence social approval. The importance of evaluative communication is illustrated by research on public behavior. Normative influence increases for public (i.e., observable) versus private (i.e., unobservable) behavior (Lapinski & Rimal, 2005). For example, Bagozzi et al. (2000) found people were more influenced by norms for public (i.e., eating with friends) than for private (i.e., eating alone) behavior. Private behavior is less able to promote social approval because it is harder to monitor. We propose that evaluative communication is a precursor to the development of injunctive norms.

The potential for behavior to be monitored has been associated with adherence to injunctive norms. In a classic study, Miller and Rowold (1979) observed the behavior of masked and unmasked children on Halloween. An unattended candy bowl provided an injunctive norm with a sign indicating children should take two pieces of candy. The authors found significantly more masked children violated the norm than those without masks. This indicates monitoring behavior influences the application of injunctive norms.

Another example of how monitoring influences adherence to injunctive norms can be found in studies examining hand washing behavior in restrooms. Several studies have shown that people are more likely to wash their hands when others are observably present than when others are not visible in public restrooms (Edwards et al., 2002; Lapinski et al., 2013). Assuming a societal hand washing injunctive norm, this indicates individuals adjust their behavior to fit the norm when social approval is possible.

This is further illustrated in the classic Milgrim obedience studies (e.g., Milgrim, 1974). In these studies, an experimenter indicates what behavior is expected by directing a participant to shock an innocent cohort for providing wrong answers. Research shows when the experimenter is not physically present, obedience declines (e.g., Haslam et al., 2014). Thus, when an authority figure is unable to monitor behavior, the pressure to go along with the approved behavior is reduced.

Recently, Vesely and Klöckner (2018) examined the link between anonymity and adherence to injunctive norms. In an online setting, individuals earned money that could be later donated to an environmental charity of their choice. Injunctive norms were established by statements about what a majority of participants had previously stated was the most socially appropriate donation. Participants believed their donations were either anonymous or would be revealed to other participants. Individuals exposed to the injunctive norm were more likely to match the normative expectation in the observable than in the anonymous condition.

Although people may not generally be able to determine if someone else flosses regularly, it is apparent in a typical dental examination. Despite this fact, there are indicators that people may not realize their dentist can identify their flossing behaviors. A survey found that people lied to their dentists about how frequently they flossed (Rack, 2015). This indicates that individuals may

not realize their behavior is observable.

Evaluative communication from the dentist regarding flossing behavior indicates that flossing performance can be monitored. This should serve to promote injunctive norms. Feedback about flossing behavior indicates the behavior is monitored by the dentist, reflecting a form of evaluative communication. In essence, evaluative communication indicates behavior moves from private to public.

The second premise of MINI is evaluative communication will promote injunctive norms. We propose Hypothesis 2 to test the link between evaluative communication, as indicated by dental feedback about flossing and pro-flossing injunctive norms.

H2: Dentist evaluative communication providing patient feedback about flossing performance will be positively associated with a pro-flossing injunctive norm.

We have proposed two forms of communication behavior that promote injunctive norms. However, to understand how injunctive norms influence behavior we need to examine what links injunctive norms to the intent to adhere to such norms (i.e., behavioral intent). In the next section, we discuss how injunctive norms activate guilt to influence behavioral intent.

Guilt

Behavioral intent is the extent to which an individual is ready to engage in a specific action (Fishbein & Ajzen, 1977). Behavioral intent is considered to be a direct predictor of a person's behavior and, as such, is useful in understanding forces that promote behaviors. In the current study, we examine how perceived injunctive norms relate to behavioral intent.

Cialdini et al. (1990) refer to injunctive norms as norms of ought. If individuals accept an obligation to follow injunctive norms in order

to gain social approval, failure to comply with the norm should trigger negative emotions. Consistent with this reasoning, Christensen et al. (2004) found that adhering to injunctive norms was associated with positive emotions while failing to obey norms led to negative emotions.

We argue that guilt is a mediating variable between the activation of injunctive norms and the intent to adhere to injunctive norms (i.e., behavioral intent). In this context, guilt is an emotional response to the cognitions about the injunctive norm. Several studies demonstrate how cognitive variables (i.e., norms and intent to follow those norms) produce the emotional response of guilt (e.g., Bamberg et al., 2007; Hynie et al., 2006; Onwezen et al., 2014). For instance, Onwezen et al. (2014) found that recognition of injunctive norms for certain behaviors predicted the experience of guilt associated with violating those behaviors.

Jacobson et al. (2021) found that individuals who were more prone to experiencing guilt were more influenced by injunctive than descriptive norms. This highlights the distinction between the how injunctive norms work (i.e., via social approval) and how descriptive norms work (i.e., via social proof) and the role of guilt in promoting injunctive normative behaviors.

The third premise of MINI, then, is that injunctive norms are positively associated with guilt connected with failing to adhere to the norm. In the current study, we predict injunctive norms about flossing promoted by dentist-patient communication influence the guilt people report feeling for failure to floss. This is stated in hypothesis 3:

H3: Activated pro-flossing injunctive norms will be positively associated with higher levels of guilt for failure to floss.

Behavioral Intent

The experience of guilt due to a failure to comply with an injunctive norm should increase the intention to abide by the norm. Elgaaied (2012) examined how guilt predicted pro-environmental behavior. Anticipatory guilt about failing to recycle was a positive, significant predictor of the intention to recycle. Others also have shown that anticipated guilt is a predictor of behavioral intent (e.g. Bamberg et al., 2007; Hynie et al., 2006; Lindsey, 2005; Onwezen et al., 2014).

MINI's fourth premise proposes that increasing feelings of guilt for non-normative behavior increases the behavioral intent to adhere to injunctive norms. In the flossing context, we would predict that heightened levels of guilt associated with the failure to floss would be positively associated with the behavioral intent to floss. This is stated in Hypothesis 4:

H4: Higher levels of guilt associated with a failure to floss will be positively associated with greater behavioral intent to floss.

MINI

We have proposed a series of propositions predicting how a series of inter-related variables

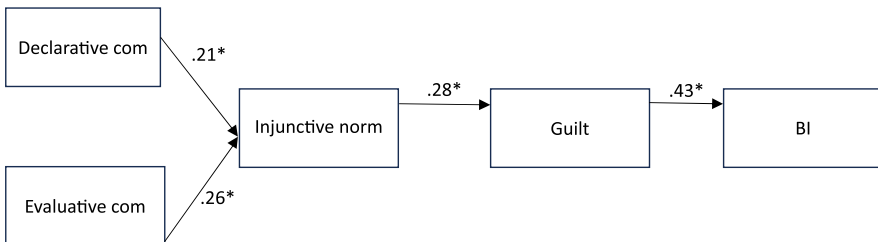
ultimately predict a person's behavioral intent to floss. These variables move from communication about the behavior (i.e., declarative and evaluative communication) to activated injunctive norms to guilt and finally to behavioral intent. The relations among the variables can be visualized in a proposed model incorporating the premises of MINI (see figure 1).

METHOD

Participants

Participants were recruited using a log rolling sample. Students in upper division communication courses at a large Midwestern university recruited people eighteen or older who reported regularly scheduling dental check-ups (i.e., at least once a year). A general adult sample, rather than a student sample, was thought to provide better external validity. The sample included 143 men and 176 women, age: $M = 28.66$, $SD = 12.27$. The participants reported race or ethnicities included 26% of participants being African American, 4.4% being Asian American, 61.4% being Caucasian American, and 10.3% being Latino or Latina American and the remainder answered other or did not report an ethnicity.

Figure 1. Results of Testing MINI Model



Note. IN = Injunctive Norm and BI = Behavioral Intent. *Significant at $\alpha = .05$

Procedures

Due to the advantages of online data collection (Boster et al., 2023), data collection involved an online survey. Participants were provided with a link to a survey provided through Qualtrics. After reading informed consent information and indicating consent to participate, individuals were provided with a series of questionnaire items assessing the constructs in the study and demographic information. Upon completion of the study, individuals were thanked for their participation.

Measures

All scales were coded so that higher numbers reflect more endorsement of the construct. Additionally, all measures were assessed with a five-point response scale. Each measure was created for this study because of the focus on specific behavior (i.e., flossing).

Declarative Communication

Dental communication indicating the importance of flossing serves as declarative communication in this study. Declarative communication was assessed using a three-item measure created for this study. The items included: whenever I see the dentist, my dentist tells me I should be flossing daily; my dentist advises me to floss daily; and my dentist frequently suggests that I should floss. Overall, the measure proved to be reliable, $\alpha = .88$, $M = 4.26$, $SD = 0.90$.

Evaluative Communication

Dental feedback about how well a patient is flossing serves as evaluative communication. We examined perceptions of dental feedback concerning the adequacy of patient's flossing as a measure of evaluative communication. A three item measure of evaluative communication was developed for this study. The items included: At my dental check-ups, my dentist comments on how well I have been flossing; at my dental check-ups I receive feedback about how well I floss; and, my dentist lets me know when I have not been flossing well. Overall, the measure proved to be reliable, $\alpha = .79$, $M = 3.59$, $SD = 1.01$.

Injunctive Norms

The injunctive norm measure is consistent with the conceptualization of societal injunctive norms as described by Park and Smith (2007). The measure indicates perceptions of what most people feel is the appropriate behavior. A four-item measure was created to assess impressions of social approval of flossing. The items included: Everybody thinks people should floss consistently; the typical person thinks it is right for individuals to floss frequently; society considers failing to floss to be inappropriate; and most people approve of regular flossing. Overall, the measure proved to be reliable, $\alpha = .73$, $M = 3.51$, $SD = 0.78$.

Guilt

We assessed the guilt people reported feeling for failing to floss. A three-item measure was created

Table 1. Correlations among variables

	Declarative	Evaluative	IN	Guilt	BI
Declarative	1.00	.51*	.37*	.19*	.30*
Evaluative		1.00	.34*	.38*	.51*
IN			1.00	.36*	.33*
Guilt				1.00	.59*
BI					1.00

Note. IN = Injunctive Norm and BI = Behavioral Intent. *Significant at $\alpha = .05$

to gauge these feelings. The items included: I feel guilty when I do not floss; When I do not floss, it makes me feel like I've done something wrong; and, I floss regularly so I do not feel guilty. Overall, the measure proved to be reliable, $\alpha = .81, M = 2.75, SD = 1.09$.

Behavioral Intent

Behavioral intent reflects people's intent to floss in the future. A four-item measure was developed to assess intention to floss. The items included: I will floss daily; I will try to floss at least once a day; I plan to floss on a daily basis; and I will floss regularly. Overall, the measure proved to be reliable, $\alpha = .94, M = 3.56, SD = 1.18$.

RESULTS

Preliminary Tests

Correlations were calculated among the variables of interest. Results are presented in Table 1.

Hypotheses Tests

A mediation analysis was run using PROCESS 4.2 in SPSS. The model type was specified as 6 with 5000 bootstrap sampling. Declarative communication and evaluative communication were employed as x-variables. Because PROCESS uses only a single x-variable, the analyses were run twice rotating declarative communication and evaluative communication between x-variable and covariate in the design allowing the effects of each to be tested. Injunctive norms and guilt were entered as sequential mediating variables and behavioral intent was utilized as the y-variable.

Direct Effects

The model summary statistics indicate adequate model fit. Overall, the model produced an $R = .66, R^2 = .43, p < .001$. We next consider the direct effects in the model. The results of our analysis as

they pertain to the hypotheses tests are presented in Figure 1. Path scores reflect standardized coefficients linking variables. We predicted, in Hypothesis 1, that declarative communication would be positively associated with the injunctive norm. Hypothesis 1 received support. Dental declarative communication was significantly and positively related to the perceived injunctive norm. We predicted in Hypothesis 2 that evaluative communication would positively affect perceived injunctive norms. Hypothesis 2 is also supported by the data. Reports of dentist feedback significantly and positively influenced the perceived injunctive norm.

Injunctive norms were predicted to influence perceived guilt for failing to floss. This path was significant and positive, supporting Hypotheses 3. Having an activated injunctive norm predicted feelings of guilt related to flossing behavior. Finally, in Hypothesis 4 we predicted that feelings of guilt would be positively associated with intent to floss. This hypothesis was also supported.

Indirect Effects

The indirect effects of the declarative communication, evaluative communication, and injunctive norms on behavioral intent are also considered. Standardized coefficients are used to show indirect effects. The indirect effect of evaluative communication on behavioral intent in our model is $\beta = .17, 95\% \text{ CI } [.11, .24]$, consistent with our predictions. The indirect effect of declarative communication on behavioral intent in our model is $\beta = .01, 95\% \text{ CI } [-.05, .06]$. This finding does not support the predicted role of declarative communication on behavioral intent in our model. Although declarative communication influences the injunctive norm, it does not have a significant indirect effect on behavioral intent. Finally, consistent with the proposed model, the indirect effect of injunctive norms on behavioral intent is significant, $\beta = .03, 95\% \text{ CI } [.01, .05]$.

Unanticipated Effects

A significant direct effect emerged for evaluative communication on guilt, $\beta = .32$, 95% CI [.22, .48], that was not hypothesized using MINI. In addition, evaluative communication also produced a significant, direct effect on behavioral intent, $\beta = .31$, 95% CI [.26, .54], beyond the scope of the model. No other direct effects, unaccounted for by MINI, are significant.

DISCUSSION

We have proposed MINI to explain how injunctive norms become activated and ultimately influence behavioral intent. Specifically, we predicted that two forms of injunctive communication promote injunctive influence: Declarative communication and evaluative communication. We further predicted that injunctive norms influence behavioral intent by triggering guilt for failure to comply. We tested the predictions of the model using dentist-patient communication about flossing as the context.

Declarative Communication

In hypothesis 1, it was predicted that dentist communication about the importance of flossing (i.e., declarative communication) would predict individuals' injunctive norms. We found support for the hypothesis in the test of the direct effect of declarative communication on injunctive norms. However, the indirect effect on behavioral intent was not significant. This weakens support for the variable in the theorized model.

It is possible the effect of declarative communication was limited due to ceiling effects. If individuals are brought up believing that flossing is expected behavior, continued communication from dentists in adulthood may not move the needle very much. In essence, what behavior is expected of individuals may already be baked in the cake. With regard to MINI, our

results indicate further testing of declarative communication in other contexts is needed.

Evaluative Communication

We hypothesized that dentist evaluative communication about flossing would activate injunctive norms. This hypothesis was supported. Evaluative communication produced a significant, positive association with injunctive norms. It further produced a significant indirect effect on behavioral intent.

Beyond the predicted role of evaluative communication in MINI, we also found it directly influenced perceptions of guilt and behavioral intent. It appears, at least with regard to flossing, evaluative communication is highly effective at promoting desired behaviors. This is consistent with the position of Cialdini et al. (1990) that injunctive norms involve a social approval process. Attaining social approval for one's behavior is conditional on others being able to recognize said behavior.

It is possible the effect of dental evaluative communication is magnified in the context of flossing. If people generally believe no one can tell if they floss, receiving feedback challenging that belief requires them to perform a reanalysis of the situation. If normative behavior is more clearly visible to others, and thus more likely to promote social approval, the role of evaluative communication may be diminished. Again, research exploring other behaviors are needed to further test and develop MINI.

Guilt

In MINI, the effect of injunctive norms on behavior is mediated by guilt. We hypothesized that injunctive norms would be positively associated with guilt related to failing to floss. Our hypothesis was supported. Injunctive norms directly influenced reports of guilt. In addition, the indirect of injunctive norms on behavioral



intent was also significant. Consistent with the idea of gaining social approval, people feel emotional distress for violating injunctive norms.

Emotional responses are frequently complex (e.g., Dillard & Shen, 2018). It is, of course, possible that people could experience positive emotions for fulfilling the norm (e.g., Onwezen et al., 2014). Further tests of the model could entertain this possibility.

It was also hypothesized that guilt would predict the intent to floss. This hypothesis was supported. Guilt directly influenced behavioral intent in addition to mediating the effects of other variables in the model.

IMPLICATIONS

MINI offers valuable insights concerning how to promote behaviors. In the current case, we highlight effective communication strategies for dentist-patient interactions. The model indicates the importance of injunctive communication promoting healthy behaviors (e.g., flossing). Two forms of injunctive communication are identified as important in activating injunctive norms: Declarative communication and evaluative communication. Although the results concerning declarative communication are mixed, the role of evaluative communication in promoting behavioral intent is evident.

Based on MINI, and our results, dentists can craft messages that promote preferred behaviors. These findings have important implications for dentists, and potentially doctors, in promoting healthy habits. Dentists should focus messages not only on the importance of flossing, but also to provide feedback about patients' flossing habits.

Consistent with the logic of the focus theory of normative conduct (Cialdini et al., 1990), MINI looks at how the injunctive norm can become the point of focus in establishing healthy habits. MINI expands on the focus theory of normative conduct by looking at the communicative roots

of injunctive norms in addition to providing an explanatory mechanism (i.e., guilt) by which injunctive norms operate.

Limitations and Directions for Future Research

The current study was designed to examine the tenets of MINI. We focused on messages from an authority figure (i.e., dentist) as the means of conveying injunctive norms. However, injunctive norms are frequently conveyed by those close to us rather than by authority figures (e.g., Park & Smith, 2007). The current test is therefore limited in scope.

We did not factor current behavior into our analysis of flossing. It is possible that guilt varies based on the person's current flossing behavior. To some extent, dental evaluative communication probably conflates with behavior. It could be expected that people who floss regularly are more likely to receive positive feedback whereas those who do not are more likely to receive negative feedback. Distinguishing between types of evaluative communication could provide useful insights.

Future research could expand MINI by examining the use of injunctive norms in other contexts. Beyond health contexts, MINI might be applicable for behaviors such as binge drinking, texting while driving, or voting. Each of these contexts could involve a situation where injunctive communication comes from family or peers rather than authority figures.

In addition, it is possible that by relying on injunctive norms, MINI risks producing reactance. Kavvouris et al. (2020), for instance, found injunctive norms were more likely than descriptive norms to produce psychological reactance which, in turn, reduced behavioral intent.

Future research should address the mediating effects reactance may produce in the use of injunctive norms.

It is possible that the declarative communication

plays a key role in limiting the effects of reactance. Declarative communication not only prescribes behavior, it also implies how one can avoid negative evaluative feedback. How clearly declarative communication provides a pathway to positive feedback could reduce reactance. Future research should explore the nature, as well as the frequency, of declarative communication.

CONCLUSION

We have proposed MINI, a model explaining the predictors and antecedents of injunctive norms. Our results are largely consistent with the predictions of the model, though the role of declarative communication needs further exploration. MINI offers an insightful lens by which scholars and practitioners can address the use of injunctive norms to promote or discourage behavior.

For dental practitioners, the clear take away is the importance of providing evaluative communication. As posited, evaluative communication indirectly influences behavioral intent as proposed in MINI. However, the direct effect of evaluative communication on behavioral intent indicates the considerable impact it can have. Dentists and hygienists should be encouraged to address the effectiveness of patients flossing to promote future flossing behavior.

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