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Exploring Disclosure Research in Nursing Communication and Scholarship: Current Research and Future Directions

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Abstract

Health care in the U.S. is a dynamic and demanding field faced with many challenges such as an aging population, coupled with increases in chronic diseases and conditions (e.g., heart disease, stroke, cancer, type 2 diabetes, obesity, and arthritis). Addressing these challenges involves ongoing communication among numerous constituents comprised of health care providers (physicians, nurses, therapists), health administrators, patients, family members, and/or other caregivers. Part of managing a chronic illness, for example, is coordinating information surrounding the condition such as disclosing health information to others. The purpose of this article is twofold: First, we examine current "disclosure" research (referred to variously as sharing, information management, avoidance, holding back, withdrawal, and privacy management) in both nursing and communication scholarship. Second, we propose an agenda for expanding disclosure research in nursing contexts and for more collaborative research among nursing, communication, and other relevant disciplines (e.g., psychology, social or health psychology, medicine, and public health).

Keywords: disclosure, sharing health information, nurse disclosure, patient disclosure, disclosure decision making, information management.

Introduction

Health care in the U.S. is a dynamic and demanding field in the midst of significant change. By 2030, 71 million Americans (about 20% of the U.S. population) will be age 65 and older. These individuals are at higher risk for complex health problems, chronic illness, and disability, and they are—and will continue to be—the heaviest users of health care (Health and Aging Policy, n.d.). Another key challenge is increases in chronic diseases and conditions such as heart disease, stroke, cancer, type 2 diabetes, obesity, and arthritis, which are among the most common, costly, and often preventable of all health problems. As of 2012, about half of all adults (approximately 117 million people) had one or more chronic health condition (Centers for Disease Control and Prevention, n.d.). Addressing these challenges involves coordination among nurses, physicians, health administrators, patients, family members, and other caregivers.

Part of managing a chronic illness or even an acute illness is dealing with information surrounding the condition, such as disclosing health information to others. Several terms are used to refer to disclosure and related phenomena including sharing, information management, avoidance, holding back, withholding, nondisclosure, and privacy management (Checton et al., 2019; Goldsmith, Miller, & Caughlin, 2007; Greene, 2009; Manne et al., 2014; Petronio, 2002). Each of these terms emphasizes some aspect of what is often a dialectical tension characterized by complementary but at times competing goals: to share in order to form, improve, or reinforce connections with others yet simultaneously avoid potential risks associated with sharing. What remains common across the terms (and many definitions) is that they focus on individuals' voluntary decisions to share (or not) information with a specific other. This emphasis brings a level of intentionality and cognitive processing that may not reflect the reality of patient-nurse communication experiences that may involve unique manifestations of vulnerability and uncertainty on the part of the patient or patients' close others. Often the research focus here is on the patient as the "holder" of the information, but this phenomenon could also be relevant for family members/caregivers and health care providers (HCP) revealing.

In the midst of managing these health conditions and relationships nurses, in particular, are regularly enmeshed in interactions where disclosure is a central component. Some of the challenges present for nurses may also be relevant for other HCPs such as medical assistants, physician assistants, physical therapists, genetic counselors, or dental assistants, yet nurses face very different types of challenges from medical doctors,

surgeons, or therapists. For example, nurses provide and coordinate patient care, educate patients and the public about various health conditions, and may provide advice and emotional support to patients and their family members (Bureau of Labor Statistics.gov). Moreover, registered nurses (RNs) enact the majority of health care provision in the U.S. Nurse responsibilities typically involve performing physical exams and health histories before making critical decisions, providing health promotion, counseling and education, administering medications and other personalized interventions, and coordinating care, in collaboration with a wide array of other health care professionals (American Nurses Association.org). Thus, nurses have numerous communication/disclosure opportunities with their patients compared to other HCPs, in part based on the frequency or regularity of their continued contact (e.g., in a hospital setting across a "shift" or visiting a home regularly) but also based on the amount of time spent with the patient and close others compared to other types of HCPs.

This article focuses on the specific dyad, patient-nurse, and information sharing processes. We focus this review on the last 10 years of themes represented in nursing and communication scholarship addressing disclosure. This literature focuses more on patients (or family members) sharing with nurses and less on nurses sharing with patients. Thus, disclosure contexts such as medical record disclosure or privacy and consenting processes were not included. Also not included are instances of "sharing a diagnosis" that medical literature often labels "disclosing a diagnosis" where a HCP tells a patient or family what specific condition tests revealed. For example, a study of HCPs' challenges sharing cancer diagnoses with patients or their families would not be included but studies where nurses share their own health conditions (e.g., recovering from cancer) with a patient or family would be included in the review. We begin with a review of disclosure in the recent nursing literature.

Disclosure in Nursing Scholarship

The American Association of Colleges of Nursing (AACN) outlines the necessary curriculum content and expected competencies of graduates from baccalaureate nursing programs. Although communication courses, per se, are not required, the AACN emphasizes the importance of a liberal education for nurses that teaches "essential" skills of inquiry, analysis, critical thinking, and communication in a variety of modes (e.g., written and spoken word) that can influence relationship building. Baccalaureate-prepared nurses are expected to provide patient-centered care which involves coordinating care, listening to, communicating with, and educating patients and caregivers regarding health, wellness, and disease management and prevention (AACN.org). Less clear is to what extent nursing programs teach specific communication skills such as disclosing bad news or responding to difficult questions, including challenging disclosures. We know that both patients and nurses report dealing with these challenging issues, yet there appears to be variation in nurse training to deal with most aspects of disclosure, our focus here.

Disclosure is a poorly understood phenomenon in nursing, yet the concept is critical to providing effective nursing care (Saiki & Lobo, 2011). Saiki and Lobo (2011) posited that disclosure connotes more than simply communicating but is "the act of seeking care by revealing personally significant information that exposes the bearer to the risk of rejection or negative judgment" (p. 2719). This definition focuses primarily on patients and/or their family/caregivers as the ones with a health care goal. However, nurses and other HCPs also disclose in health contexts, receiving a great deal less attention. For example, our review identified research focusing on disclosing health information to various others (e.g., spouse, family members, nurses) such as disclosing an HIV/AIDS or cancer diagnosis and other health-related concerns such as disclosing genetic information within families, an emerging body of research with continuing medical advances. Additionally, nurses use self-disclosure (e.g., about their own attitudes and beliefs) and other communication behaviors to facilitate patient disclosure whereby sharing self creates a context for the other to become more open. In other theories, this "share to encourage sharing" is referenced as reciprocity (see Social Penetration Theory, Taylor & Altman, 1987). In the next sections we highlight current nursing research related to both individual/patient and nurse disclosure.

Some nursing disclosure research can be grouped according to the health condition, with the assumption that general patient or nurse disclosure decision making does not generalize across different health issues. Based on available disclosure theory, there are reasons for the absence of generalization across health conditions such as stigma (e.g., sexual or drug using behavior), relevance to others (genetics), potential for transmission (an STI or neonatal transmission) or some combination of these factors (see Leary & Schreindorfer, 1998) that may dramatically affect disclosure or non-disclosure decisions and disclosure efficacy for one condition and not another. One specific context that has generated research is disclosure of HIV/AIDS; we begin the nursing literature review here.

Patients and HIV/AIDS disclosure. HIV is a fear generating and stigmatizing disease (e.g., Stutterheim et al., 2017), and even in the 4th decade of the epidemic many people continue to find it difficult to disclose HIV+ serostatus and HIV-related symptoms to HCPs and others (Stutterheim et al., 2016). For example, Nokes (2011) argued that for older persons living with

HIV, culture, religion, age, and race can profoundly affect the way in which symptoms are perceived, and reasons for nondisclosure include attributing symptoms to the "normal" aging process. Grodensky et al. (2015) focused specifically on challenges older women face in coping with HIV and its attendant stressors. Their in-depth interviews demonstrated that many women felt isolated and inhibited from seeking social connection due to reluctance to disclose their HIV status, which they viewed as more shameful at their older age (Grodensky et al., 2015). Polansky, Teti, Chengappa, and Aaron (2015) surveyed African-American women with HIV/AIDS' disclosure practices to partners (e.g., married, committed, primary, and non-primary relationships) and found that women who were emotionally close and monogamous with their partner were most likely to disclose their HIV status while non-monogamous women were least likely to share their status. Gaskins et al. (2011) reported that African-American men with HIV described different purposes for disclosure (e.g., relieve stress, satisfy the need to tell, receive support) and reasons for non-disclosure (e.g., fear of negative reaction or stigma, not ready to tell, not wanting to burden others) of their HIV status. These studies focus generally on themes in reasons for and/or against disclosure or factors described to influence sharing (or not), similar to parallel research in psychology and communication (e.g., Derlega, Winstead, Greene, Serovich, & Elwood, 2004; Greene & Faulkner, 2002) that strives to find over-arching themes in reasons for/against disclosure such as reasons based on self, other, and relationship criteria (see Greene, Derlega, & Mathews, 2006; Derlega, Winstead, & Greene, 2008). This broader grouping of self, other, and relationship could be a useful overarching addition to these types of studies in nursing to better compare and contrast across relationships or contexts and provide a theoretical framework/grounding.

Disclosing an HIV/AIDS diagnosis continues to be a difficult, stigmatizing, and risky process in the U.S. and globally (Lee, Li, Iamsirithaworn, & Khumtong, 2013; Sullivan, 2009; Zhang et al., 2017). Even health care workers report experiencing stigmatizing responses to their HIV disclosure at work (Stutterheim et al., 2017), calling for additional research. Little nursing research explores other facets of HIV/AIDs disclosure, such as ongoing disclosure (i.e., after initial disclosure), the role of disclosure efficacy, and how people manage the stress of being a disclosure recipient. We also know little presently regarding how culture affects disclosure decisions or how these decisions vary in different settings such as health care in countries outside the U.S. or Western medicine generally (for exceptions see Lee et al., 2013; Miller & Rubin, 2007). Recent publications in the *Journal of the Association of Nurses in AIDS Care*

(JANAC), a peer-reviewed, international nursing journal that covers a broader spectrum of the global HIV epidemic, focused on stigma associated with disclosing HIV in cultures/countries such as the Netherlands (Stutterheim et al., 2017; Stutterheim et al., 2016), South Africa (Sommerland et al., 2019), and Canada (Donnelly et al., 2016). Additionally, there are many studies of HIV disclosure in other journals such as those in health, epidemiology, infectious disease, including some journals that are specific to HIV (e.g., *AIDS Care, HIV Medicine, AIDS Patient Care and STDs*).

Patients and disclosing about cancer. Compared to individuals disclosing an HIV/AIDS diagnosis to a spouse/partner or other, far fewer nursing studies exist on disclosing a cancer diagnosis, per se (e.g., "I have ovarian cancer") and no known research except Checton et al. (2019) has addressed patients' ongoing sharing/withholding from HCPs. An exception to emphases on disclosure may be studies suggesting that perceived stigma associated with some cancers (e.g., lung cancer) may prevent patients from disclosing symptoms, seeking medical help, and thereby delaying diagnosis (see Carter-Harris, 2015; Carter-Harris, Hermann, Schreiber, Weaver, & Rawl, 2014). There may be an expectation in the nurse-patient dyad that patients routinely or always share a diagnosis to improve treatment for even an unrelated condition, yet there is reason to continue to study cancer-related non-disclosure or avoidance based on findings that it does occur (e.g., Carter et al., 2015; Checton et al., 2019).

Multiple studies focus more commonly on patients' disclosures about cancer-related topics (e.g., treatment options, side effects, emotions). For example, Lim, Paek, and Shon (2015) found that cancer survivors and their partners used "selective sharing" of cancer-related general information such as treatment options, physician appointments, or treatment schedules. Checton et al. (2019) found that women undergoing treatment for gynecologic cancer and their supporter (e.g., spouse, child, or friend) reported holding back from sharing specific cancer-related information with HCPs when the other was present. Patients reported holding back sharing embarrassing personal information with HCPs, while supporters reported avoiding sharing fears and concerns about the future. Thus, nurses (and HCPs generally) may struggle with very different relationship processes for the patients compared with their caregiver/support persons. In Ohlsson-Nevo, Andershed, Nilsson, and Anderzen-Carlsson's (2011) study, colorectal cancer survivors and their partners grappled with whether "to share or not share" about the illness. Survivors described their bodies and cancer as a private matter that was nobody else's concern and decided how much information others should have. Partners reported being dependent on the patient's willingness to share information about their illness and treatment. Some partners who accompanied patients to medical visits had opportunities to ask questions, while others were denied

those opportunities to accompany and felt the frustration of being dependent on information from the patient only. Another study by La Cour, Ledderer, and Hansen (2015) looked at experiences of newly diagnosed gynecological and lung cancer patients (and a spouse or family member) attending a rehabilitation workshop. Participants agreed that the workshop served as an arena for sharing about cancer experiences (e.g., how patients were told their diagnosis), strategies (e.g., managing emotions), and mutual care (e.g., caring for each other). This study, however, is not in the context of nurse-patient dyads or general HCP relationships and is better aligned with the extensive support group literature that illustrates benefits of groups for many patients and families, including for disclosure. Overall, there is less disclosure research focus in oncology in the nursing literature, perhaps an overlooked opportunity to expand.

Patients and disclosing other health issues. Besides HIV and cancer, patients disclose in various contexts and about varied health-related issues; not all of these studies emphasize disclosure to HCPs or nurses in particular. For example, in Saiki and Cloyes (2014), women bloggers' disclosures about managing urinary incontinence described how sharing stories about incontinence in the public forum of blogs was viewed as a hopeful act where they could reach out to others by initially testing the social waters for risks to self-esteem or safety in disclosure (cf. Petronio, Reeder, Hecht, & Mon't Ros-Mendoza, 1996 "testing the waters" for challenging disclosure related to sexual abuse). Other studies focused on various health-related topics such as disclosing: genetic information (e.g., Huntington's disease, breast and ovarian cancer) within families (e.g., Rowland & Metcalfe, 2013; Seenandan-Sookdeo, Hack, Lobchuk, Murphy, & Marles, 2015), fecal incontinence to family members and health care professionals (Wilson, 2009), domestic abuse to health care providers (Montalvo-Liendo, Wardell, Engebretson, & Reininger, 2009), individuals experiencing a family member's recent stroke (Ostlund, Backstrom, Saveman, Lindh, & Sundin, 2016), heart patients with their spouses (Checton & Greene, 2014), and factors influencing disclosing lesbian, gay, bisexual, and transgender identity to cancer care providers (e.g., Kamen, Smith-Stoner, Heckler, Flannery, & Margolies, 2015) or HCP more generally (see Haas, 2019; Venetis et al., 2017). Each of these topics has unique features affecting disclosure in the patient-nurse relationship, but what is common is emphasis on understanding the process of patient sharing either generally or specifically with HCPs or nurses in particular. Additional research would be welcome to elaborate on disclosure processes.

Nurse self-disclosure and patient disclosure. Patients are often unsure of how to disclose health information and may need nursing guidance (Saiki &

Lobo, 2011). There are contexts when people use disclosure to gain disclosure. This concept of strategic disclosure to facilitate the other's sharing is generally referred to as reciprocity and is driven by a norm where people prefer balance in information shared within relationships (Dindia, 2000; Greene et al., 2006). In a study of *what* and *why* nurses self-disclose in mental health care, Unhjem, Vatne, and Hem (2018) found that nurses disclosed topics related to their immediate family, interests and activities, life experiences, and identity. Nurses reported that sharing personal information has the potential to transform the nurse–patient relationship by making it more open, honest, close, reciprocal and equal. Nurses in this study also disclosed to share existential and everyday sentiments, to give real-life advice, and because it felt natural and responsive to patients' questions. In a study of interactions between nurses and their older, rural patients, Corbett and Williams (2014) found that nurses sharing non-clinical information (e.g., community events, news, gossip, or updates on family members) in home-care contexts was both likely and desirable, supported the sense of social connectedness experienced by older adults, contributed to the development of the nurse-patient relationship, and overall improved older adult well-being. However, Corbett and Williams cautioned that boundaries may become blurred and, in some cases, nurses (and caregivers) may need support in (re)negotiating the divide between appropriate and inappropriate disclosure while maintaining a close relationship with the patient. Thus, disclosure is challenging for nurses when caring for patients known to them personally, and this challenge may be exacerbated when the patient and nurse are from the same geographic area or community.

Caring for patients that nurses do not know may be equally challenging. For example, nurses are expected to assess and care for patients' needs, and these needs extend beyond physical to perhaps include psychosocial, social, and/or spiritual realms. In terms of spiritual needs, Pfeiffer, Gober, and Taylor (2014) found that nurses report difficulty with conversations about spirituality. Clinical nurses in their study used various goals and strategies, including self-disclosure, when conversing with patients about spirituality. Specifically, allowing patients to talk was necessary for any spiritual care conversation. Nurses reported "treading lightly" when approaching spiritual discourse, assessing for any type of patient resistance, and not pushing further if any was encountered. Although the findings illustrate goals and strategies for conversations about spirituality, they also raise questions about how nurses' own religious beliefs ethically inform these conversations. Overall, nurses' self-disclosures may enable conversations deemed sensitive or challenging for both nurses and patients and their families.

One related set of nursing literature that addresses difficult nurse disclosure topics is associated with medical error. Disclosing an error, such as a medication

error or even a surgical error (perhaps for surgeons or oncologists and less so nurses), is a particularly challenging task for nurses. Stigma is associated with making an error, and nurses perceive they may be a target for repercussions if they admit to making a mistake (Durham, 2015). As such, errors are consistently underreported. For example, most nurses in Covell and Ritchie's (2009) study of medication errors agreed that less than 60% of all medication errors that occurred on their units were reported. *Fear* (of adverse consequences, being blamed, patient's or family's reaction, physician reprimands, colleagues' reactions) was the largest barrier to reporting medication errors. McLennan, Diebold, Rich, and Elger (2016) found that although nurses generally agreed that patients should be informed about every error, nurses reported that most errors are, in fact, not reported to patients. Durham (2015) argued that nurses have a professional duty and moral obligation to report medication errors; reporting them addresses complex system issues and improves patient outcomes by minimizing the likelihood of the same event being repeated. The challenging aspect of this particular "medical error information" is that it "belongs" to or is co-owned (Petronio, 2002 broadly; see Petronio, 2006, for medical mistakes specifically) both by the patient (i.e. about his/her body, condition, and/or health) but also about the HCP (his or her professional life). The information the nurse considers sharing also might not be his or her own error but an error on the medical team, but it is much less likely that a patient would feel obliged to share in this way (e.g., deliberately took a medication when instructed not to). Thus, sharing medical error is especially challenging for nurses relationally, in the literature, and more broadly, deserves further attention in disclosure research.

Nurse communication behaviors and patient disclosure. Beyond self-disclosure, nurses can also use general communication behaviors strategically. Multiple studies explore how nurses' communication behaviors, in general, can facilitate patients' and caregivers' disclosures. Much of this research has been generated from studies of hospice nurses, often conducted by a team led by Clayton at University of Utah. For example, in Cloyes, Berry, Reblin, Clayton, and Ellington's (2012) study of hospice care, nurses' use of facilitative communication (i.e., caregiver oriented, vivid, responsive) vs. directive communication (i.e., nurse oriented, dense, less responsive) allowed more space for caregiver expression and helped shape the nature and focus of the interactions. Relatedly, Clayton, Reblin, McKenzie, and Ellington (2014) found that hospice nurses used specific communication behaviors (e.g., positive emotion statements, physical questions) to elicit and address distressing concerns of patients with cancer and their caregivers. Most recently, Clayton, Dingley, and Donaldson (2017)

looked at how breast cancer survivor-health care provider communication (e.g., nurses' explanation of symptoms) during oncology follow-up visits can facilitate resolution of survivors' uncertainty and anxiety (see also Clayton & Dudley, 2009). Question asking and patient behavior studies with HCPs is extensive for HCP interactions, often based on data gathered through video or audio taping of actual patient/family health care visits or consultations. Compared to research based on surveys, interventions, or curriculum/training, this type of research provides a rich source of data that can inform HCPs about how best to facilitate patient and family member disclosures.

Nursing Scholarship: Analysis and Commentary

Nursing scholarship addressing disclosure, to date, focuses primarily on: (a) patient disclosure of specific health information such as a health diagnosis or symptoms related to a diagnosis or health condition and (b) nurses' self-disclosure as a way of facilitating patient disclosure. Less research has explored the disclosure decision-making *process*, including but not limited to predictors of patients', caregivers', or nurses' disclosing in these relationships or the conditions that facilitate sharing. This research has also not examined disclosure efficacy or confidence in one's ability to disclose in a way that produces desired outcomes. The scholarship also could examine specific features of disclosure messages (e.g., direct vs indirect, incremental, face to face vs by phone or email, etc.). In addition, much of the focus here remains on patients disclosing a medical diagnosis (e.g., "I have HIV" or "My family has a history of prostate cancer") but we know that people share *ongoing* health information (e.g., "Treatment starts this week" or "My left arm continues to ache") with various others including HCPs across relationships and time. Greene (2009) argued that "people are constantly in a process where decisions have to be made about sharing updates, not simply the initial diagnosis" (p. 232). Research is crucial for understanding how disclosure affects outcomes such as managing overall health and chronic health conditions for patients, spouses, HCPs, and other caregivers, but this is absent from nursing disclosure scholarship. Additionally, we would benefit from more studies on patient/caregiver withholding/avoidance and/or how the presence of another person affects what is or is not shared with the nurse or HCP. There is also little research comparing what patients disclose to various parts of the health care team, as each member of the team has a different role including but not limited to wide variation in frequency and duration of patient contact. Any and all of this research could prove beneficial in improved training for nurse/HCP interaction with patients and families as well as for patients' health care experiences.

Disclosure in Communication Scholarship

In the last 10 years, disclosure research in communication literature has spanned a wide range of topics but moved from almost exclusive emphasis on disclosure of a diagnosis (to whom) to focus on ongoing disclosure and also how to explain disclosure decision-making. This research to date often uses samples of patients or families rather than much prior communication scholarship—including interpersonal communication scholarship—that was dominated by undergraduate student college samples. There is a great deal of overlap between communication and social/health psychology, for example in citations, but neither refer widely to the nursing scholarship such as that we reviewed previously. Overall the communication scholarship includes many qualitative studies that characterize how patient (and support people) experience health care, including difficulty managing disclosure decisions. More of this research has moved toward understanding process and experimental studies. Communication disclosure literature has focused primarily on theory building or testing and to a lesser extent on applications or tests in specific health conditions.

Some of this communication research focuses on patient (or spouse/caregiver) health disclosure in close relationships, with far less focusing on disclosure to HCPs including nurses. There are few communication studies that focus on the nurse as participant, with some exceptions in the organizational communication literature that examine job satisfaction, training, and burnout or the hospital as an organization and some studies using conversational analytic methods that focus on the health care team (at times includes nurses) but often focuses on the doctor, surgeon, or oncologist interaction with the patient/family. The focus on HCPs specifically is not common except for several studies on physicians and disclosing medical mistakes (e.g., Hannawa, 2009; Petronio, 2006).

The major theories and frameworks utilized in communication disclosure scholarship include Communication Privacy Management (CPM; Petronio, 2002), Disclosure Decision-Making Model (DD-MM; Greene, 2009), Revelation Risk Model (RRM; Afifi & Steuber, 2009), and openness/ avoidance framework (e.g., Donovan-Kicken & Caughlin, 2010; Goldsmith et al., 2007). The field has moved beyond disclosure as a component of relationship development theories such as Social Penetration Theory (Altman & Taylor, 1973; Taylor & Altman, 1987) or the clicking model to explore theories that focus on the disclosure process including antecedents of sharing as well as specific message feature selection. These theories are similar to health/ social psychology theories such as Omarzu's Disclosure Decision Model (DDM, 2000), Reis and Shaver's Interpersonal Process Model of Intimacy

(IPMI, 1988; see also Manne et al., 2018), or Chaudoir and Fisher's Disclosure Processes Model (DPM, 2010), but what separates the communication framework is emphasis on message feature choices, decision making, and inclusion of disclosure confidence or efficacy.

Communication Privacy Management (CPM). CPM theory (Petronio, 2002; see also Petronio & Venetis, 2017) is the most widely applied disclosure theory presently in the communication literature, utilized extensively to frame studies reporting grounded theory accounts of patient experiences, most of which are not focused on disclosure to or with HCPs. This theory emphasizes how patients, partners, families, and HCPs create and manage boundaries around private information, including how people create rules for privacy and how they manage conflicts or "turbulence" in these perceptions and relationships. Examples of recent studies using a CPM framework include how family medicine physicians manage patient requests for religious disclosure in medical interactions (Canzona, Peterson, Villagran, & Seehusen, 2015), communicative experiences of surrogates who served as decision makers for patients (Bute, Petronio, & Torke, 2015), women's disclosure decisions about genetic cancer risk in families (Rauscher, Hesse, Miller, Ford, & Youngs, 2015), cancer communication and partner burden (Venetis, Magsamen-Conrad, Checton, & Greene, 2014), patient withholding to physicians in the context of birth control clinics (Lewis, Matheson, & Brimacombe, 2011), and nurses' experiences with disclosure predicaments that arise during patient care (Petronio & Sargent, 2011).

CPM is the dominant framework in communication disclosure studies presently. There are limited efforts currently to develop measurement to test CPM propositions (see Petronio, Shin, & Childs, 2019), but it remains to be seen if CPM will be utilized almost exclusively to ground qualitative explorations of specific health conditions (often interview data) or moves into prospective designs or survey research that can provide comparisons with other theories (described next) and/or identify which components of CPM are central to disclosure decision making across both relationships and contexts.

Disclosure Decision-Making Model (DD-MM). The DD-MM (Greene, 2009) is another theory that scholars use to describe how patients make decisions to share their health information, but it has not been used in studies of how HCPs or nurses share in this context. This theory focuses on health disclosures rather than disclosures generally and describes that a decision to share health information with others is a process based on assessment of several factors including five aspects of the information (e.g., stigma, preparation, etc.), a potential receiver in terms of relationship quality and anticipated reaction of the receiver to the information, and disclosure efficacy or perceived ability to share to share the piece of information with a specific person.

Examples of studies applying the DD-MM (or portions of it) include factors influencing the likelihood of disclosing (and past disclosure of) nonvisible physical or mental health-related information (Greene et al., 2012) or planning strategies for non-visible disclosure (Choi et al., 2016); disclosing mental illness to a friend with a focus on disclosure strategy selection (Venetis, Chernichky-Karcher, & Gettings, 2017), sharing mental health information more broadly (Carpenter, 2017) or mental health disclosure decision-making (Pawa, Fulginiti, Brekke, & Rice, 2017); approaches to disclosure about breast cancer risks and family planning decision-making (Dean & Rauscher, 2018) or genetic test outcome disclosure in families (Greenberg & Smith, 2016); ongoing disclosure for patients managing a heart-related condition (Checton & Greene, 2012); disclosing about HPV (Smith, Hernandez, & Catona, 2014); strategies for disclosing HIV (Catona, Greene, & Magsamen-Conrad, 2015); strategies for disclosing cardiovascular issues (Catona, Greene, Magsamen-Conrad, & Carpenter, 2016); sharing infertility (Steuber & Solomon, 2011); and decision-making in cancer-related topic avoidance (Venetis, Greene, Checton, & Magsamen-Conrad, 2015).

What is unique about research utilizing the DD-MM is that it has focused exclusively on health topics, has extensive measurement development for components, included disclosure efficacy in many studies, and leads researchers to focus more attention on anticipated response (see Magsamen, 2014) and nuances of perceptions of the information in disclosure decision making. In terms of information, research prior to the DD-MM often utilized a positive-negative type of semantic item (or several items) without considering the five aspects that can influence disclosure that are articulated in the theory. Prior to this DD-MM research, much disclosure research used relational quality as a predictor of responses; for example, a patient could have a good relationship with a person but feel confident that they will not respond well to some sharing, or a patient could have a conflictual relationship but know that the person will "come through" if they share. The standard relational quality variable, in DD-MM studies, does not explain much variance when the study includes the multi-component information variables, disclosure efficacy, and anticipated response. Thus, the DD-MM has utility for continued and expanded use in this context.

Other theories and frameworks. Several other theories and frameworks have guided some communication health disclosure research, often combining aspects of theories. To a lesser extent, Afifi and Steuber's (2009) RRM has been used to explore risks associated with revealing/disclosing health information, but these studies also draw on the DD-MM. For example, Steuber and Solomon (2011)

looked at factors predicting married partners' disclosures about infertility to social network members. Similarly framed in several disclosure theories (e.g., CPM, DD-MM, RRM), Greenberg and Smith (2016) explored motives for disclosing genetic test results within families. Catona et al.'s (2015) study of HIV disclosure practices also utilized both the RRM and DD-MM. Additionally, a body of research exists on general openness and avoidance in communication about cancer and heart disease (e.g., Checton & Greene, 2014; Donovan-Kicken & Caughlin, 2010; Goldsmith & Miller, 2014) that does not specifically test or use any of these theories. Overall, these theories described have not been utilized as extensively as the DD-MM or CPM reviewed.

One additional current topic that has received specific attention separately from two research teams (Haas and Venetis) is patients' sharing their LGBTQ status with health care providers. Venetis et al. (2017) examined lesbian, gay, and bisexual individuals' disclosure patterns of sexual orientation to health care providers. Participants interviewed reported that they disclosed their orientation early in the medical visit during introductions, during small talk with the provider, and during the history-taking phase of the visit. Such sexual orientation disclosures were presented with minimal information, casually, and often indirectly, and this adds to the literature on specific message features described previously. Haas (2019) focused on male same sex couples "coming out" to HCPs (predominantly providers) and struggling with dialectical processes underlying heteronormative expectations in this context. Both of these research teams draw on multiple theoretical frameworks for their studies, but what is common is the emphasis on patients sharing (or concealing) to HCPs which can include nurses (see also Kosenko, Rintamaki, Raney, & Maness, 2013).

Commentary on communication scholarship. Taken together, much of this communication research is descriptive but increasingly incorporates theory building and testing in addition to applications to health contexts. The emergence or dominance of patient focused samples has improved over earlier research and also moved toward couples or paired data and sometimes even families as unit. We still need much more research that includes nurses and/or patients describing disclosure/avoidance specifically to nurses. The field has—thankfully—moved away from "imagined interaction" such as "What would you do if you had x diagnosis?" or "What would you tell (or avoid telling) your health care provider?" Greene and colleagues as well as Afifi and associates are establishing consistent patterns (across both relationships and contexts) focusing on what predicts disclosure such as disclosure efficacy and anticipated response as well as which message strategies are selected if a patient chooses to share. This is different from older research focusing on

new college roommates or relationship initiation (see Derlega et al. 2008, for review). The early research by Vangelisti as well as Caughlin often focused on secrets in the context of families, but this has not focused primarily on health conditions or relationships with HCPs. We still need a great deal more disclosure research tracking relationships and processes over time, virtually absent in communication disclosure literature to date.

Petronio's (2002) CPM theory continues to be a useful theoretical framework in which to explore disclosure and privacy in various interpersonal contexts, especially health-related ones, but to date has not tested the steps involved in people's disclosure decisions. Greene's (2009) DD-MM provides a mechanism for researchers to examine the factors predicting, and the process individuals go through, when deciding whether (or not) to disclose health information. Moreover, it provides testable propositions to stimulate theory development and refinement (e.g., Checton & Greene, 2012), but it has been less widely utilized.

Although the DD-MM acknowledges that disclosure decision-making is an ongoing process that does not end with initial disclosure, the model explicates only the factors influencing disclosure/ nondisclosure and not specific message features. Yet, people managing chronic illnesses, for example, seem to establish patterns of disclosure where they disclose about certain health-related issues but not others (e.g., Checton & Greene, 2014; Goldsmith & Miller, 2014; Venetis et al., 2015) and to certain targets but not others (e.g., Checton & Greene, 2015; Derlega, Maduro, Janda, Chen, & Goodman, 2018). Reasons for developing specific patterns of disclosure are likely similar to reasons for disclosure/nondisclosure such as a duty to inform a partner about recent test results, while perhaps not disclosing about a new symptom to avoid worrying a partner or being belittled or rejected. Further, because disclosure is a dynamic process, especially in health-related contexts, people continuously assess/reassess a receiver's responses to disclosures and willingness (and ability) to provide support (Magsamen-Conrad, Venetis, Checton, & Greene, 2019). Magsamen-Conrad (2014), for example, reviewed information management literature to try and distinguish receiver response including anticipated and actual, reporting wide variation in conceptualization and operationalization. She reports differences in and dimensions to anticipated response, anticipated outcome, and reactions, and these distinctions will be significant for future research and progression in theory and practice for health disclosure.

Less focus in communication journals has been on nursing/HCPs, yet some research is beginning to explore sharing with HCPs when a spouse/caregiver is present (e.g., Checton, Greene, Carpenter, &

Catona, 2016; Checton et al., 2019; Venetis, Robinson, & Kearney, 2013). Some of the nondisclosure or avoidance research generally with patients/close others should generalize to HCP interactions, but that must be tested. One benefit is that some of this communication disclosure research is dyadic or triadic, allowing for patient and spouse perspectives, yet to date there is little research focusing on the nurse/patient dyad particularly nor data that are analyzed dyadically.

Agenda for Future Research and Conclusion

There are many opportunities for expanding disclosure research in nursing contexts and for more collaborative research among nursing, communication, psychology, social psychology, medicine, and other relevant disciplines. At a minimum, we need overlap in citations, acknowledging the utility of research in both nursing and communication (as well as psychology and health). We are beginning to establish recognition of key features of the disclosure process in this nurse-patient relationship, seeing similarities and differences across relationship types as well as health topics. This is accompanied by less or no emphasis on theory testing and application in nursing journals, in contrast to communication scholarship that has been characterized by limited inclusion of nurses or patient disclosure focused on nurses specifically. Both areas of scholarship have a great deal to gain from immersion in the other.

Moving forward, we must focus on the nurse-patient relationship in the context of a changing health care system and differences in the U.S. profile of health. For example, the U.S. population is aging, with most older adults managing one if not multiple chronic illness, demonstrating a need for HCPs especially nurses to care for these populations. The context for care may also set boundaries for certain aspects of patient disclosure (e.g., which health condition and prior relationship with HCP), although nursing disclosure overall may be similar with limitations in frequency of contact and variation in setting. For example, the oncologist vs. survivorship setting likely changes the type of interactions between patients and nurses, differences that we do not as yet fully understand, and these must be different from more routine care.

Patient avoidance is an ongoing concern, and we know that even before entering a HCP interaction patients make decisions regarding whether they view part of their medical history as relevant (or not). In an effort to take less provider time or even to avoid stigma patients may edit some sharing by labeling it as "none of their [HCPs'] business."

An agenda for expanding disclosure research in nursing contexts must include more collaborative research among nursing, communication, psychology, social psychology, medicine and other relevant disciplines. Thus, more interprofessional dialogue is

necessary for both fields such as more theoretical communication (e.g., disclosure) studies in nursing and other health journals and intensive efforts to include nurses (and other HCPs) in communication studies. This is an area ripe for expansion that would add a great deal to nursing communication broadly.

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