Communicating about Medications:

Directions for Research

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Approximately 1.5 billion prescriptions are filled each year. However, these medications cannot be effective unless they are used properly. A 1990 study by the National Council on Patient Information and Education found that about one-third of all patients fail to take their prescribed medications. The report estimates that about 7% of all prescriptions are never even filled. Of those that are filled, 4% are never picked up, and of those that are picked up, about 20% are never taken (citation).

The physical and economic costs of medication noncompliance are staggering. One report estimates that as many as 125,00 deaths occur each year because of noncompliance (Jackson, 1990). A recent review of emergency room visits at a single hospital showed that inappropriate use of prescription drugs (primarily overdose or noncompliance with the regimen) accounted for 2.9% of all hospital admissions and emergency room visits (Prince, Goetz, Rihn, & Olsky, 1992). Noncompliance is a particularly serious problem for the elderly population. Those 60 years old and older, who constitute 17% of the population, use 39% of all prescription drugs; two thirds of the elderly also use nonprescription drugs regularly (citation). A recent study found that the elderly were involved in one-third of all hospitalizations due to adverse drug effects and 50% of all reports of fatalities due to inappropriate use of prescription medications (Lamy, 1990). A 1982 study by Strandberg reported that 23% of all nursing home admissions could be linked to the elderly's inability to manage medications at home (Green, Mullen, & Stainbrook, 1986). In sum, patient noncompliance with medication regimens has been associated with increased hospital admissions,

prolonged length of stay, and resulting increases in health care expenditures.

There are many reasons why patients deviate from their therapeutic regimens. According to Johnston, Clarke, Mundy, and Ridout (1986), "patients may fail to comply with medical recommendations either because they choose an alternative response (intentional noncompliance) or because they do not understand and/or remember what they were asked to do (unintentional noncompliance)" (p. 304). Evidence suggests that inadequate communication about medications is a principal reason why as many as 55% of patients unintentionally deviate from their medication regimens, and in doing so seriously compromise their health (Office of the Inspector General, 1990).

Much of the research on medication communication and compliance has examined the influence of written and oral communication about medication on patient satisfaction, understanding, and compliance. Among the factors contributing to decreased knowledge about and compliance with medications is a lack of individualized medication counseling and a lack of written instructions to reinforce verbal instructions (O'Connell & Johnson, 1992). Several studies have shown that when given a choice between oral counseling, written information, or both, the majority of patients choose both (Culbertson, Arthur, Rhodes, & Rhodes, 1988; Harvey & Plumridge, 1991).

While patients may want as much information as possible about their drugs, the reality is that they are not currently receiving it. A recent review of empirical studies found that the proportion of patients receiving no verbal consultation about new prescriptions ranged between 17% and 30% for physicians and between 30% and 87% for pharmacists

(Wiederholt, Clarridge & Svarstad, 1992). Further, a 1987 federal government survey found that only 26% of participants received any written information at the pharmacy with their last prescription (Morris, Grossman, Barkdoll, & Gordon, 1987). These findings may not be surprising in light of a 1991 survey of physicians and pharmacists who were aslked about the noncompliance problem. "When asked why there is such misuse, few physicians and pharmacists blame themselves, pharmaceutical companies, the Food and Drug Administration, or the mass media. Most blame the patients themselves--who they say don't listen, don't read, forget, self medicate, overdose, underdose, misunderstand, ignore directions, and are sometimes just not too smart" (Center for Communication Dynamics, 1991, p.1).

Recognizing the present and future importance of communication about both prescribed and over-the-counter medications, the special issue brings together researchers from a variety of disciplines to report their recent work in this area. DiMatteo and her colleagues begin by synthesizing recent research about the causes of medication nonadherence. Emerging from this synthesis is a framework (the PREPARED system) for discussing the risks and benefits associated with medical treatments. In contrast to DiMatteo et al.'s project, which describes a normative model for provider-patient interaction, Parrott's piece describes the often imperfect reality of communication between doctors and patients. In analyzing several videotaped encounters, Parrott identifies specific types of information that are missing from doctors' instructions to patients, and she recommends that medical interviewing courses begin to emphasize the explanation of treatments as much as the taking of histories.

The next two articles examine how older adults obtain information about their medications. The survey by Smith, Cunningham, and Hale asked elderly Floridians where they received information about drugs and where they preferred to receive such information. In most cases, there was a clear preference for physicians (over pharmacists and others) as sources of information about drugs. Repondents also wanted more information and opportunity to participate in decision-making. In the next article, Schommer examines the effect of similarity in role expectations on the amount and type of communication betwen pharmacists and patients. Incongruent expectations tended to limit pharmacist-patient communication, and these differences in expectations were most pronounced between pharmacists and older patients. Schommer's findings may help to explain the source preferences reported by Smith and his colleagues.

Lambert examines the effect of individual differences in communication skill on patients' perceptions of hypertension compliance gaining messages. The messages are also examined thematically, and relationships between themes and patients' perceptions are reported.

Moving into the realm of written medication information, Reid and his associates review recent work that examines how patients' comprehension is influenced by text and reader characteristics. The authors stress that attempts to improve written materials must go beyond simple readability measures and must employ rigorous field testing to insure the accessibility of written material. Kreps' review of Roter and Hall's recent book on doctor-patient communication closes the special issue.

Drug therapy is a ubiquitous component of contemporary health care. To gain the maximum benefit and avoid the inherent risks involved in drug therapy, health professionals and patients must take the time to talk about medications and their proper use. Certain key topics must be covered, including (but not limited to) how to take the medication, what to expect, how to recognize adverse effects and what to do if they occur. These topics must be communicated by professionals whom patients trust. The information presented orally must be comprehensible and memorable, and it must be backed up with comprehensible written information. A great deal of research is needed in this area. It is hoped that the articles in this issue will provide a rough sketch of what is currently known and some guidance about where more work should be done.

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