

Part II

Techniques To Improve Compliance in Hemo- and Peritoneal Dialysis Patients

Horace Batson, PhD • Merny Schwartz, PhD

"I would like some input on how other technicians effectively deal with non-compliance among some of our more stubborn patients," wrote a technician recently in an e-mail note to NN&I. "... Any strategies that may enable us to show that compliance is for (the patient's) own good, and not just because we are trying to be hard on them."

In this article, the second in a two-part series, authors Batson and Schwartz suggest some practical interventions that renal staff can use for both hemo- and peritoneal dialysis patients. The authors cover theories of compliance in Part I (6/99, NN&I).

Foot-in-the Door

A tried and true technique of achieving compliance in the end-stage renal disease (ESRD) patient is known as the foot-in-the-door approach. This strategy might have the medical psychologist (mp) first train the patient in stress management techniques, focus concentration exercises, and designing a personally-relevant psychological litany or mantra for the patient. Why would we implement stress management training and the like for patients before determining whether there is a compliance problem? In general, we recommend psychologically inoculating patients with reinforcing strategies that they might use on those occasions that they may find it hard to comply. This prophylactic treatment is like taking a flu shot to prevent getting the flu – in short, we are building up the patient's resistance.

For example, the patient might be asked to repeat the following phrase three times a day at 9:00 am, 12:00 pm, and 3:00 pm: "Excessive fluid/weight gain is a poison;" "I need my body to live," and "I owe my body this respect and protection." Once the patient is confident with the litany, a small favor or request can be made. When the patient has successfully complied, a much larger favor can be requested.

If the staff wanted a hemodialysis patient to lower their fluid/weight gain, instead of asking for a large weight loss one first asks for a much lower amount. Once the patient has achieved that goal, he or she feels they have earned the mp's verbal praise or congratulations (which is important to give when patients successfully do what you ask.)

After the patient complies with the first, smaller request the mp then asks for the larger

one. If the patient is not successful with the larger request, the mp retreats to a slightly lower request to maximize the patient's chances of achieving success. At all costs, avoid making patients feel like a failure. Always make the patient feel successful. If the patient does not successfully achieve significant fluid/weight loss, choose a different goal (i.e., one that is more easily attained).

For example (if the patient is a cigarette smoker), ask the patient to smoke one less cigarette per day, ask the patient to carry a book to the social worker before they leave their treatment, and so on. Make sure the patient achieves success before they leave the center.

Door-in the-Face

In contrast to the foot-in-the-door approach, the door-in-the face technique starts with asking the patient to make a large fluid/weight loss. Following, (if the patient resists) the mp makes a smaller request. The patient should undergo stress management, focus concentration, and litany training.

Foot-in-the Mouth

Essentially, this is a procedure for gaining compliance in which the requester establishes some kind of relationship, no matter how trivial, with the patient, thereby increasing this person's feeling of obligation to comply.

Let us consider a practical application. Center staff might enlist the aid of a patient that is both a friend of the noncompliant patient and a model patient. The model patient (PI) serves as an ally in counseling the noncompliant dialysis patient (i.e., P2), who has elevated sodium. PI say to P2, "John, we are both patients and I know how difficult it is to lower my sodium, but I did it! And, I know that if I can do it, you can

Dr. Batson is a medical psychologist and Vice President for Corporate Development at Mental Health Service Professionals (MHSP Inc.). Dr. Schwartz is CEO/VP of Quality Assurance at MHSP and is responsible for outcome studies, research and the training of the medical psychologists. MHSP Inc. is a nationwide organization of medical psychologists that specialize in providing cognitive behavioral psychotherapy for ESRD patients.

do it too. So try to get it down lower like Doctor Smith says by not adding salt to your food. Try it for one week, and let's talk again, OK?"

The patient (P2) should consult with the nutritionist for proper food choices. In the event that P2 has anxiety or feels excessive stress about the changes he can undergo stress management training and/or in vivo desensitization procedures.

Playing Hard to Get

With this procedure, the requester increases compliance by suggesting that a person or object is scarce and hard to obtain. The nephrologist might say to the noncompliant patient, "If you smoke five cigarettes a day instead of 20 for one week, I will bring you those special dietetic treats that you cannot find."

Deadline

In this procedure the requester increases compliance by telling the target person that they have only limited time to take advantage of some offer to obtain some item. For example, the nurse might tell a patient who is not punctual in his appointment time for dialysis that he will earn a surprise gift if he comes in on time each day for the next two weeks before June 1st. This may be considered a temporary "fix" for some. However, there is not likely to be a magic bullet that will work forever. Center staff will have to be creative and relentless in their pursuit for creative approaches to patient compliance.

That's-Not-All

This is a technique for gaining compliance in which a requester offers additional benefits to target persons before they have decided to comply with or reject specific requests.

Let us use the same example as in the deadline procedure for a real world application. Find out from the patient's family whether the patient has a particular liking and if possible use that as an incentive. However, before the patient makes a decision to comply with the surprise gift offer, say, "Before you make a decision if you do choose to come in on time each day for the next two weeks before June 1st, not only will you get a surprise gift I will also give you (whatever the patient's family suggested)!"

These suggestions may seem like bribery, and not focus on achieving patient understanding of the importance of compliance. To paraphrase a popular adage, "We can get a patient to comply if we can lead him or her to *want* to comply." First, achieve compliance; then modulate the reinforcement modality from extrinsic to intrinsic.

Complaining

Another effective technique is expressing dissatisfaction or resentment or regret with the patient as a means of eliciting compliance. The nurse manager might complain to a patient with elevated BP (who is not taking his blood pressure medication), "I am disappointed with you, John. I know that you know better. Don't you want to get better? Since you do, then take your medication starting today, OK?"

Pioue

This is a technique for gaining compliance that focuses on gaining the patient's attention and so preventing him/her from engaging in automatic refusal. For example, the nurse might ask the patient to lose 31/3 lbs. instead of 5 lbs. The uneven 31/3 is likely to quickly get the patient's attention and eventual compliance.

Low Ball

The first step of this technique involves the social worker or mp obtaining a verbal commitment from the patient. For example, asking a noncompliant diabetic patient to eat only one M&M candy if they have to eat candy (instead of the entire bag).

The second step is to show that only a higher-cost version of the initial request will do any good. The mp tells the patient that he/she should not have any candy. The low-ball approach differs from the foot-in-the-door technique because the initial request is escalated after it is agreed to but before it can be fulfilled.

As with the other techniques, the mp works with the patient to implement stress management training, focus concentration, and a litany. Also, the social worker or mp should design a "What-to-do-when-you-get-sweet-cravings" substitute activity list. The mp essentially tells the patient that during the times that the patient gets cravings for these candies, substituting these activities will assist the patient in getting through those difficult times until the cravings dissipate. Additionally, it is recommended that the nutritionist provide the patient with a list of "No-No" foods.

Proximity

Research suggests that when authority figures are in close physical relation to the patient, the higher the compliance. MPs provide psychotherapy while the patient is being dialyzed. In fact, the mps sit approximately 6-12 inches away from the patient to ensure privacy at the dialysis unit.

Social Proof (Testimonials)

Another effective compliance enhancement technique is reliably obtained through the use of testimonials. This occurs when evidence is cogently presented to the patient "proving" the health benefits of the desired changes.

For example, the health provider might want to convince the patient that attending dialysis treatment regularly, consistently, and not shortening treatment times result in greater life expectancy (i.e., the patient living longer). In this case, the mp utilizes bibliotherapeutic (e.g., books, articles) and/or videotherapeutic (e.g., medical infomercials, video tapes, or documentaries), as well as websites, cassettes, CDs or radio talk shows featuring experts discussing these issues.

To be sure, in order for patients to comply they first need to believe in the requester and find him or her to be trustworthy, likable and similar (e.g., race, social economic status, neighborhood, interests, etc.) to them.

Providing a Reason for the Request

Studies have demonstrated that people are more likely to

comply when you give them a reason. It is not effective to tell a patient, "You have to lower your blood pressure." Compliance is increased if you say, "It is important for you to lower your blood pressure because it will reduce your chance of getting a heart attack."

Medical psychologists have long understood the importance of providing a reason for the patient to change. That is, they enlist the patient to take responsibility for their own treatment. The health care professionals conduct cognitive-behavioral treatment where information and skills are taught to allow the patient to make critical decisions about their life.

Research has shown that information alone does not result in significant behavioral change. However, compliance is enhanced through the provision of both information and skills.

Being Likable and Complimentary

As obvious as it may seem, people seem to comply better to the requests of people that they like. The role of the patient liking you can never be emphasized enough.

Independent rating scales administered to patients receiving treatment by the health care professionals suggest that, in general, patients find their therapists very likable. This partially accounts for a relatively high degree of patient compliance with sleep induction procedures (to decrease sleep onset times) and pain management exercises.

One of the strategies that is utilized is the technique of complementing (e.g., verbal praise or reinforcements). Let's take the case of the nephrologist or nurse wanting a patient to consistently and reliably take his or her medication. If they initially spoke with the patient and the patient was still not complying, they may consult with the mp.

The therapist asks the patient about any difficulties that he or she might have taking the medication (i.e., possible side effects, taste, administration schedule, etc.) After all of the patients' concerns are addressed, the mp reviews the need for medication compliance and explains why.

When the patient has successfully complied with the medication compliance he or she is complemented. They are made to feel that they have achieved an impressive feat. Unfortunately, patients (and all of us in our daily work

environment) are not complemented enough for doing the right thing.

Reciprocity

For many of us, it is socially and functionally automatic for us to hold a door open for the person that held it open for us earlier, send a holiday greetings card to someone that mailed us a card, give a gift to a friend that gave us one, etc. This tendency is ingrained in many if not most of us. The field of social psychology refers to this as the principle of reciprocity. For the world of nephrology, this proclivity can work to facilitate patient compliance. For example, the nephrologist

wants his or her patient to follow the recommendations to lose weight. However, the patient refuses to comply. Cognitive-behavioral techniques in the form of stress management, focus concentration (to enable the patient to stick to a diet), or a personally relevant psychological litany can be applied. Send the patient a birthday or holiday greetings card or bring in a magazine or article or small (inexpensive) gift that the patient expressed interest in. Then review the necessity for making the required efforts to lose weight. Experience shows that the patient complies more readily this time.

Dialysis centers should make each patient feel special by instituting a policy of doing several of the above mentioned activities. Patients will become more manageable and more compliant. This is an excellent technique for improving patient health, promoting treatment at your facility, and keeping patients' and staff morale high.

Competition With Other Dialysis Centers

Research has shown that when people of different teams feel in competition with each other, team building, cooperation, and compliance are improved. For example, dialysis center A and dialysis center B might announce that they are in competition

with each other to see which center achieves the biggest fluid/weight loss, reduction in missed patient appointments, largest reduction in the number of cigarettes smoked, greatest medication compliance, etc. over a period of a month. These results could be posted weekly in plain view of both patients and staff. The winning center could receive a party, or some other nominal award. The center acts as a unified group working towards the same goal. This process creates a group culture that reinforces or encourages individuals to work on

“There is no one technique that works consistently, every time. Several factors must be in place in order to maximize patient compliance. First, the health care professionals and treatment setting have to be positive and inspire hope and trust. Patients should be seen as colleagues in the design and implementation of their treatment plan. Treatment plans should be realistic – based on what the patient should and will do.”

Compliance Techniques for the PD Patient Population

The particular situation posed by the peritoneal dialysis patient, whether it involves continuous ambulatory peritoneal dialysis (CAPD) or continuous cycling peritoneal dialysis (CCPD), is particularly challenging.

Unlike hemodialysis patients, PD patients visit the facility approximately once a month. They are the most independent of the ESRD patients. Although compliance issues exist with hemodialysis patients, the nature of their treatment requires that they be directly observed by staff during their dialysis.

But how do we determine if in fact the PD patient is compliant? Also, if he or she is not, how do we blindly (without monitoring the patient) maximize compliance?

In general, the authors advocate that the appropriate center staff pre-screen each prospective patient prior to initiating treatment. At this time, interview each patient (i.e., hemo or PD) and obtain a comprehensive compliance history. This interview should determine if the patient has difficulty complying with medical procedures, the types of procedures, and so on. Being proactive will make it easier to build an effective compliance enhancement program and increase your patients' chances of achieving good medical outcomes.

Also, it is always a good policy to integrate creatinine clearance studies, interdialytic weight gain measurements, Kt/V, etc. into the counseling of all of your patients. Be clear as to where they could be ideally with increased compliance. Give them any charts, graphs, or printouts that you have pertaining to them.

If the patient has problems with compliance, what things get in the way of their compliance (e.g., color, shape of medicine, quantity, scheduling etc.) and what can be done to help? What role does his or her family play (if any) with facilitating compliance. Which family member(s) could be recruited to assist with ensuring patient compliance?

Efforts have been launched to find the "gold standard" for determining PD patient compliance with exchange prescriptions. For example, Keen et al. (1993), Nolph et al. (1995), and Warren et al. (1994) suggest that PD patient compliance could be predicted by calculating the ratio of measured to predicted (M/P) creatinine. Recent research concluded that this technique is unreliable (Blake et al., 1996, Burkart et al., 1996 and Bernadini and Piraino, 1997).

In the Bernadini and Piraino study, the authors showed that the best indicator of PD patient compliance with exchanges was through the use of home visit supply inventories. It was shown that noncompliant patients became sicker (i.e., more days hospitalized, more hospitalizations, and more admissions for uremia) than compliant patients.

It appeared that keeping track of a home visit supply inventory was effective in obtaining a more accurate picture of patient compliance than predicted creatinine. One might theorize that having contact with clinic personnel was the determining factor. It might further be hypothesized that some one-to-one interaction with the patient is critical in any compliance enhancement program.

Unfortunately, it may not be practical to have a dialysis nurse make regular visits. However, several possibilities exist. One can make intermittent patient home visits (i.e., variable ratio, the same schedule as the frequency that you win at slots in a casino.) This schedule has been demonstrated to result in long-standing performance with minimal contact or reinforcement. Essentially this means that, if the patient is visited every now and then, the patient is likely to comply more than if he or she has **no** visits.

If staffing is a problem and the facility is prepared to go "high tech," they might use a ViaTV. This is a small, inexpensive camera easily installed in minutes on top of the patient's and facility's television sets. This system uses regular telephone lines and allows for two-way video conversation between the facility and the patient. The patient can turn the camera on when they receive a call from the facility. Therefore, the staff might instruct the patient that they will make an inventory supply check and/or have a monitoring of their exchanges on Monday March 15, 1999 at 10:00 am, for example. The patient will simply turn their ViaTV on for real time viewing.

In lieu of actual home visit supply inventories or use of a ViaTV, the staff might call the patient and check his or her inventory over the telephone or call prior to their exchange to remind the patient. The authors strongly believe that this form of patient contact could also effectively increase compliance.

The ESRD patient, as like many other patients with chronic illnesses suffers from an ailment for which there is no cure, even if the patient complies 100%. It is only natural that periodically patients will be more or less compliant throughout the course of their treatment. Pre-screening, which includes compliance history, interviews, ongoing clearance measures with immediate feedback to the patient, home visit supply inventories, (e.g., in person, telephone, or ViaTV), and ViaTV PD exchange monitoring, will prove to be effective compliance enhancement interventions.

Patients, who, because of anxiety, depression or other emotional and behavioral problems have poor compliance might benefit from cognitive/behavioral therapy in addition to enhanced monitoring. **NN&I**

— H.B., M.S.

...Techniques for Improving Patient Compliance

behalf of the group, thereby increasing compliance. Patients do not want to feel left out. They want to feel protected by the group therefore they actually commit to making changes in service of the group.

Individually, patients are seen by their mp to work on the general issue of compliance, along with their other issues. Patients are reinforced for their commitment to succeed and encouraged for their continued participation. This technique not only facilitates compliance; it is also an excellent staff morale booster and center team builder. Admittedly, if there are intractable staff problems, this exercise will not produce miracles. However, it will help bridge the often present gap between professional and technical staff.

Compliance Enhancement Techniques: Disease Factors

Another important issue to be addressed with respect to the enhancement of patient compliance is the nature of the disease. Is the medical problem a chronic condition without obvious symptoms? Is the medical problem affecting the patients' personality? Are the symptoms stable? The medical doctor or mp should inform the patient as much as possible about their illness.

This is particularly the case in those disease states where there is minimal symptomatology or where the symptoms are not obvious. In these special cases patients should be told that their condition does not have obvious symptoms. However, their medical condition is real. Having symptoms that are not obvious makes it ever more critical to comply with the treatment plan because one can easily be lulled into a false sense of security and cease or compromise their medical treatment.

Conclusion

To be sure, achieving compliance requires the skills of a professional. There is no one technique that works consistently, every time. Several factors must be in place in order to maximize patient compliance. First, the health care professionals and treatment setting have to be positive and inspire hope and trust. Patients should be seen as colleagues in the design and implementation of their treatment plan. Treatment plans should be realistic – based on what the patient should and *will* do.

Also, an adequate profile of the patient should be constructed to determine if underlying psychological, personality, and behavioral problems mitigate against compliance. If there are predisposing psychodynamic issues, treatment with one of the trained medical psychologists is recommended.

Moreover, the physician, social worker, mp, or health care professionals should appraise the patient of the nature of

their illness and of any unique features, such as its stability or the lack of obvious symptoms. The dialysis center should creatively utilize social workers, medical psychologists, and the patients' collective culture to affect positive treatment outcomes. Once the group culture is harnessed, compliance becomes a requirement of daily life at the facility.

Once and only once this is an ongoing reality, it becomes much easier to facilitate patient compliance. This state-of-affairs results in greater achievement of the patients' medical outcomes and the dialysis center's treatment goals. **NN&I**

References

- Bernadini, J. & Piraino, B. "Measuring compliance with prescribed exchanges in CAPD and CCPD patients." *Peritoneal Dialysis International*, 17: 338-342.
- Blackburn, S. L. (1977). "Dietary compliance of chronic hemodialysis patients." *Journal of American Dietetic Association*, 70, 31-37.
- Blake, P.G., Spanner, E., McMurray, S., Lindsay, R.M., Ferguson, E. "Comparison of measured and predicted creatinine excretion is an unreliable index of compliance in PD patients." *Peritoneal Dialysis International*, 1996:16:147-53.
- Burkart, J.M., Blever, A.J., Jordan, J.R., Ziegler, N.C. "An elevated ratio of measured to predicted creatinine production in CAPD patients is not a sensitive predictor of noncompliance with the dialysis prescription." *Peritoneal Dialysis International*, 1996:16:142-146.
- Cialdini, R. B. (1994). "Interpersonal Influence." In S. Shavitt & T.C. Brock (Eds.), *Persuasion* (pp. 195-218). Boston: Allyn & Bacon.
- Finn, P. E., & Alcorn, J. D. (1986). "Noncompliance to hemodialysis dietary regimens: Literature review and treatment recommendations." *Rehabilitation Psychology*. 31, 67-79.
- Kaplan De-Nour, A., & Czaczkes, J. W. (1974). "Personality and adjustment to chronic hemodialysis." In N. B. Levy (Ed.), *Living and Dying: Adaptation to Hemodialysis*. Spring, IL: Charles C. Thomas.
- Masek, B. J. (1982) "Compliance and medicine." In D. M. Doleys, R. L. Meredith, & A. R. Ciminero (Eds.), *Behavioral Medicine: Assessment and Treatment Strategies*. New York: Plenum Press.
- Meichenbaum, D., & Turk, D. C. (1987). *Facilitating Treatment Adherence*. New York: Plenum Press.
- Nehemkis, A. M. & Gerber, K. E. (1986). "Compliance and the quality of survival." In K. E. Gerber & A. M. Nehemkis (Eds.), *Compliance: The dilemma of the chronically ill*. New York: Springer.
- Nolph, K.D., Twardowski, Z.J., Khanna, R., Moore, H.L., Prowant, B.F. "Predicted and measured daily creatinine production in CAPD identifying compliance." *Peritoneal Dialysis International*. 1995:15:22-25.
- Salovey, P. (1990, January/February). Interview. *American Scientist*, pp. 25-29.