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Article 12

Concordance and the Counselor's Role in Supporting Medical Compliance

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Abstract

Concordance is the term now utilized to label the relationship between patient and medical professional whereby both work together to develop a medical regimen that best fits the patient's condition, resources, and needs. The counselor can play a significant role in ensuring concordance by building a strong working relationship with the medical professional, providing supportive education to the client and caregiver regarding the client's medical condition and the medical regimen as prescribed by the medical professional, supporting the client in adhering to the medical regimen, and encouraging the client to report side effects and symptoms to the medical professional in a timely fashion.

Introduction and Rationale

An examination of counselor identity in the professional literature over the last few decades demonstrates greater specificity between the counselor's role and the roles of other practitioners in the mental health field (Healey & Hays, 2012). The development of ancillary roles the counselor plays in other professional arenas such as education, industry, and even the public market is also becoming more clearly defined. One of the most critical professional arenas in which the counselor's role is becoming clearer is the medical profession (Patterson, Peek, Heinrich, Bischoff, & Scherger, 2002). Indeed, the counselor can, and perhaps must, play a vital role in ensuring that the client adheres or complies with the directives given to the client by the medical professional.

The client or patient's adherence to the medical regimen prescribed by the doctor is now commonly referred to in the professional literature as concordance. This term is preferred over terms such as compliance and adherence because the term concordance indicates the collaborative nature in which the medical professional and patient work together to establish treatment goals and means, thus acknowledging the client's role as an active participant in the client's medical treatment as opposed to passive acceptance of the medical professional's dictum (Gray, Wykes, & Gournay, 2002). This collaboration underlies a critical assumption regarding human nature. This is that human beings are more apt to participate fully in activities for which they experience a sense of ownership and less apt to fully participate in a plan for which they have little ownership or little to no understanding of the plan's purpose.

There are many reasons contributing to the need for concordance, arguably the greatest of which is that with non-compliance comes poor outcome, and with greater compliance comes greater likelihood of positive outcome (Sabatâe, 2003). Poor outcome includes worsened health for the client/patient which often leads to more intensive or costly interventions than proposed in the original treatment plan (Jin, Sklar, Min Sen Oh, & Chuen Li, 2008). To add to the more intensive and possibly invasive treatment consequence is the likely outcome of greater expense to the client/patient and to society given that a great portion of medical expense becomes public responsibility. What is more, current health care reform proposes an interactive role between concordance and reimbursement rates. As it stands in the Patient Protection and Affordability Care Act (2010), reimbursement rates are slated to be cut for medical providers with high non-concordance rates regardless of the reason for these rates. This burdens the medical professional directly.

In any case, it makes sense that reaching and maintaining concordance seems to be of paramount concern for positive outcome and for maintaining viable medical practices for most providers. Given that concordance remains an issue to which medical providers must attend, it behooves the medical profession, clients/patients, and counselors to have the counseling profession define its role in assisting in the process of building and maintaining concordance. Further, students in counseling programs and established professionals alike can gain the knowledge and skills for effectively serving as support for increasing client/patient medical compliance.

Objectives

This article is intended to meet several objectives helpful to the counselor when considering client concordance with the medical professional's prescribed regimen. The first is to support the need for counselor involvement in the effort to increase concordance. The second is to increase the counselor's capacity to build a relationship with medical professionals so as to be accepted as a strong support to the medical professional. The third is to educate the counselor as to how to assist the client and medical professional effectively and ethically within the role of counselor. To begin, an explanation of the prevalence of concordance, factors contributing to concordance, and rationale for the counselor's involvement in supporting concordance will be explored.

Prevalence Rates

The current rates for concordance in medicine are concerning. In 2008, Jin and colleagues noted that long-term medical compliance in the United States, Australia, Canada, United Kingdom, and others was a dismal 40-50% while compliance rates for short term regimens were 70-80%. While it may appear more concerning that long term treatment regimens have lower rates, there are great concerns with non-concordance in short term medication regimens in that many are antibiotics. Non-compliance with antibiotics can lead to drug resistance or "superbugs" (Glombiewski, Nestoriuc, Rief, Glaesmer, & Braehler, 2012; Okeke, Lamikanra, & Edelman, 1999). The lowest concordance rates are found in regimens that require lifestyle changes as is the case in many preventative protocols used for reducing risks or health complications related to alcohol consumption, obesity, and tobacco use (DiMatteo, 1995)**.** Psychiatric concordance rates have been found to range between 58 and 65% (Cramer & Rosenheck, 1998; van Dulmen et al., 2007). It is noteworthy that studies of children and adolescents diagnosed with Attention-Deficit Hyperactivity Disorder have a better concordant rate of 81% (Fine & Worling, 2001), which may be due to the daily involvement of other professionals such as school nurses in promoting concordance. The contradiction may also be explained by the difficulty in tracking concordance, yielding less accuracy in defining said rates (Gray et al., 2002).

Factors Influencing Concordance

It is no surprise that there are many factors that play a role in concordance or the lack thereof. These factors can be categorized into patient-centered factors and psychological factors. Each will be explored.

Patient-centered factors. Studies have discovered multiple patient-centered factors that are believed to influence concordance rates. One such factor is age. Elderly patients seem to have the highest concordance rates (Hertz, Unger, & Lustik, 2005; Jin et al., 2008; Kim et al., 2002; Senior, Marteau, & Weinman, 2004; Sirey et al., 2001). Children and adolescents with chronic disease often have the lowest concordance rates (Buck, Jacoby, Baker, & Chadwick, 1997; Copp et al., 2010; Kyngäs, 1999). While normal adolescent developmental inclusion of rebelliousness and lack of appreciation for long-term consequences may contribute to non-compliance, it may be that a desire to be "normal" or more like one's peers is a strong contributor (Taddeo, Egedy, & Frappier, 2008). For children, lower concordance rates may be attributable to the fact that children

generally require assistance from their parents or guardians who may, themselves, not fully understand or appreciate the treatment plan (Gardiner & Dvorkin, 2006).

Ethnicity has also been suggested as a factor influencing concordance. Research on the role of ethnicity is sparse, but studies have observed lower compliance rates in African American and Hispanic and other ethnic minority populations (Apter et al., 2003; Kaplan, Bhalodkar, Brown, White, & Brown, 2004). One suggestion to be further studied is that this may be due to a lower socio-economic status or to a language barrier (Apter et al., 2003; Jin et al., 2008; Kaplan et al., 2004). Caucasians typically have the highest concordance rates (Yu, Nichol, Yu, & Ahn, 2005).

Marriage is another factor related to concordance. Interestingly, marriage has been shown to positively influence concordance, presumably due to the help and support a spouse provides (Cooper et al., 2005; Turner, Wright, Mendella, & Anthonisen, 1995). There have, however, been recent studies that show no relation between relationship status and concordance rates (Kaona, Tuba, Siziya, & Sikaona, 2004; Yavuz et al., 2004). More studies regarding relationship status may determine confounding variables such as type of disease or other personal variables that make sorting out the impact of relationship status difficult.

Though not well understood, alcohol and tobacco use have been noted as influencing concordance in a negative manner (Balbay, Annakkaya, Arbak, Bilgin, & Erbas, 2005; Cooper et al., 2005; Fodor et al., 2005; Glombiewski et al., 2012; Yavuz et al., 2004). It can be speculated that patients who smoke and drink tend to be less committed to day-to-day healthy activities than their non-smoking and non-drinking counterparts, which then leads to less involvement in and adherence to the medical therapies prescribed. It may also be that the impairment in memory and other functioning accompanying persistent alcohol use increases the patient's forgetfulness of the details of the prescribed regimen for treatment. Furthermore, many medical treatments are not to be conducted in conjunction with alcohol ingestion; consequently, it may be that some patients choose to consume alcohol over the medications prescribed. Finally, alcohol and tobacco are lifestyle activities which tend to be the most difficult to alter.

Psychological factors. Psychological risk factors for non-concordance primarily stem from misconceptions and erroneous beliefs about the disease and treatment for disease (Jin et al., 2008; Stavropoulou, 2012). Imparting knowledge in the limited time allotted for face-to-face time between medical professional and patient is compounded by the difficulty patients have in retaining the information provided. On average, of the information provided in a 15-minute discussion, typically only the diagnosis and the first five minutes appear to be retained by the patient or caregiver (Beers, 2004). It stands to reason that lack of further retention leads to holes in the patient or caregiver's knowledge. Lack of knowledge leads to lack of insight regarding the potential negative outcomes of the disease or of the benefits of adhering to the prescribed medical regimen. Lack of knowledge and insight can ultimately create a lack of hope and lack of motivation—both of which are critical components of concordance. In a study of hypertension patients, Lim and Ngah (1991) found that 85% of those studied cited lack of motivation as the reason for treatment cessation.

Along the same lines, hope and motivation for adhering to the treatment regimen is limited by the patient's beliefs that the disease is either uncontrollable or should not be controlled. This is sometimes further influenced by various religious beliefs that deter

patients by positing that the disease is the will of a higher power or that the outcome of the disease is in some manner deserved (Barnes, Moss-Morris, & Kaufusi, 2004). The latter factor can be complicated further by depression and anxiety which can markedly contribute to hopelessness, a belief that one deserves the disease, or an overall negative attitude toward the disease and related processes such as treatment (Barnes et al., 2004; Iihara et al., 2004; Kilbourne et al., 2005; Sirey et al., 2001). Conversely, if a patient perceives a personal susceptibility to the illness and that the illness could cause severe health issues, then the patient is more likely to believe treatment to be worthwhile. Therefore, patients' positive beliefs in treatment improve concordance rates.

The last psychological factor to be addressed is the patient's view of the relationship between the medical professional and the patient. Improved concordance rates are related to the patient's trust in the healthcare provider, which is fostered by the prescriber's ability to show empathy and communicate effectively (Jin et al., 2008). Indeed, concordance is highest when healthcare providers are empathetic, effectively communicative, supportive, respectful, and egalitarian and empowering of the patient (Apter, Reisine, Affleck, Barrows, & ZuWallack, 1998; Moore et al., 2004). Furthermore, healthcare providers who are enthusiastic, encourage mutual decision-making, and discuss side effects related to the prescribed regimen have been shown to have higher concordance rates than do those who are not (Fine & Worling, 2001; Hackman et al., 2007; Lask, 1994).

Concordance and the Counselor's Role

Relationship. The most consistent finding regarding concordance that is most clearly related to the counseling profession is the importance of the therapeutic relationship. It would appear that the messages resulting from the meta-analysis of the literature regarding factors influencing client change over the last few decades remains consistent across the helping professions (Lambert & Barley, 2001). Just as clients attending counseling tend to be more compliant when perceptions of their relationship with the provider is positive, patients are more apt to adhere to medical treatment when they perceive the medical provider to be holding the client's best interest at all times (Cooper et al., 2009; Haskard Zolnierek & DiMatteo, 2009; Holikatti et al., 2012). Some medical professionals have excellent skills for building patient-medical provider relationship. Still others have marginal to little capacity despite excellent medical knowledge and application. Consequently, even the best medical knowledge, skill, and advice may not be appreciated by the client if the relationship is deficit. A counselor can bridge that gap by providing accurate information and education to assist the client in understanding the necessary components of the medical issue and subsequent treatment plan as prescribed by the medical professional. The counselor can build a perspective in the client that the medical professional is a trustworthy ally who has the clients'/patient's interest at the forefront when prescribing the medical regimen for the client/patient. This bridge can help ensure the client/patient perceives of him or herself as a valued equal and the medical professional as a concerned partner in the patient's care. Such a perspective of respect and partnership increases the probability of concordance.

Face-to-face time. In addition to having the training to demonstrate empathy and effective communication necessary for building positive relationship, counselors have particular advantages not afforded by the standard practice of the medical profession.

One such major practical advantage is the amount of time counselors spend face-to-face with clients. Since the Accreditation Council for Graduate Medical Education (ACGME) altered the standards for intern's schedules in 2003 and 2011, and given the implementations of electronic medical record systems and other medical data demands (Block et al., 2013), the average medical professional has spent increasing time at the computer and less time with the client. Block and her research team (2013) estimated that medical professionals spend approximately 12% of their scheduled time in direct contact with patients. If a doctor scheduled four appointments per year for 30 minutes and spent 25% of the time in direct contact, roughly 30 minutes per year would constitute face-to-face time between medical professional and patient. Counselors, on the other hand, tend to meet with their clients once per week, twice monthly, or monthly for approximately 45 minutes of face-to-face time per session, yielding 12-50 sessions totaling over 500 to 2,000 minutes of face-to-face time per year. Obviously, this is markedly more time to build relationship, identify and process issues related to concordance/non-concordance, problem solve those issues, and educate the client/patient regarding important knowledge or information regarding the diagnosis and treatment plan prescribed by the medical professional. In short, the likelihood that the counselor has far more opportunity to address factors that limit concordance is increased given the markedly increased time spent with the client.

Expertise. In addition to empathy, effective communication, and time, the counselor has additional resources for assisting the client with psychological factors that impact concordance. As noted previously, depression and anxiety are clearly related to poor rates of concordance. The Council for Accreditation of Counseling and Related Educational Programs (CACREP, 2009) standards require programs that educate and train counselors to include education and training involving psychopathology, particularly those issues as common as depression and anxiety. Accurate diagnosis of psychological issues, effective treatment, and appropriate on-going management of symptoms can greatly reduce depression and anxiety symptoms, which in turn increase the probability of concordance.

Counselor Preparation

While CACREP standards require burgeoning counselors to become knowledgeable and skillful with disorders such as depression and anxiety, the standards do not specify that counselors become proficient in understanding and working in support of the medical profession. Such training should include awareness of the basic standards of medical practice such as time scheduled with patients and how that time is spent, language often utilized in treatment planning and prescriptions, and basic classifications of medications and their potential side effects (from typical and mild to infrequent and severe). Training should also include the ethical boundaries of counseling practice when working in support of concordance for the client's medically prescribed regimen. While it may be helpful, it is not necessary for the counselor to gain extensive knowledge in chemistry, biology, pathology or pharmacology. These areas are the expertise of the medical professional. Rather, the counselor must understand the language used by medical professionals and be prepared to support their expertise by reinforcing the prescribed regimen to the client with support to adhere to it, by noting to the medical

professional any issues that are discouraging the client from complying, and by assisting family and significant others in providing support for concordance.

Medical Provider Activities

In addition to the limitations of time noted above, standard medical practice has certain protocols and limitations. While different practitioners of different medical specialties will have activities specific to their expertise, a typical day in the office for a medical provider is apt to include appointments scheduled every 20-30 minutes. Time spent with patients generally includes taking the patient's medical history, updating the charts and patient information to include current findings, carrying out or instructing other medical staff to carry out tests, examining results of tests and other data to deduce possible abnormalities, diagnosing, determining accurate best-practice treatment based on current information, advising the patient on health care issues such as hygiene, exercise, nutrition, and other preventative activities, answering questions or concerns the patient may have, prescribing medication and instructing on how to process the prescription, and completing the paperwork or electronic records to conclude the appointment. As noted earlier, all of these activities are typically concluded in approximately 20-30 minutes, 8 of which on average occur with the patient face-to-face. With the myriad of changes occurring in health care, most medical professionals have been, and stand to continue to be, inundated with greater demands with diminished rates of reimbursement.

Medical Practitioners

Nowadays, a counselor must clarify who the medical professional is and what role that professional takes. There are several potential providers, including medical doctors of many specialties, osteopaths, physician's assistants, and nurse practitioners—the latter two may need supervision by a medical doctor depending on the laws in the state in which one practices. Others in the medical office may also play a vital role in concordance including nurses who may have a 2- or 4-year degree with associated licensure, medical technicians, medical records staff, office managers, billing personnel, schedulers, or receptionists—each of whom may have contact and a professional relationship with the client. Each member of the office staff contributes to the patient's perception of care and competency, which plays a role in concordance (Smith et al. 2008). To add to the mix, one patient may be treated by several medical providers simultaneously. Each provider may or may not be familiar with each other's involvement with the patient. The thorough counselor identifies all the medical providers. The relationships among and between providers, their office staff, and the patient/client are also important to determine.

Medical Abbreviations

While various medical professionals may work to the same end, the means for doing so are often diverse. Terminology remains consistent but abbreviations used to indicate particular terms remain problematically confusing. Counselors would have greater capacity to support concordance given an understanding of common medical abbreviations and terms typically used in client records or notes from the medical professional (see Appendix for a list of terms and abbreviations that may prove helpful).

Medication Information

The means for understanding the medications a client has been prescribed is beyond the scope of a single journal article. It may suffice, however, for counselors to become adept at a process of discovering medical information that may be necessary in assisting a client with concordance. The first place a counselor can go to find basic information the client may need to increase concordance is to the medical provider. When a counselor has laid the ground work for a collaborative professional relationship with medical providers, brief e-mails or telephone calls can garner the necessary information to support the client in achieving success with the prescribed medical regimen. This information should include the expected outcome of the medication when it is working effectively, the potential side effects the client might experience that are expected and tolerable, and the potentially dangerous or intolerable side effects. The medical professional can instruct the counselor as to when to support and encourage the client and when to refer the client either back to the medical provider or to an emergency room for immediate care. Resources can also be gathered from the Physician's Desk Reference (PDR), which is a thorough guide to prescription medication (PDR Network, 2013). The PDR is written for the medical professional and is sometimes difficult to access and just as difficult for many to fully comprehend. Another resource is a pharmacist. Building relationships with the pharmacy serving one's clients can be beneficial; however, even an uninvolved pharmacist will have the information needed to appropriately educate, support, and encourage a client to assist with concordance. Finally, a counselor can search the Internet for information and guidance regarding the medical regimen set forth by the medical provider. A cautionary note is necessary in regard to Internet material: the counselor must seek information from only those sites where information is sure to be accurate rather than anecdotal information or opinion of a nonqualified person. In any case, the counselor should never substitute the counselor's own opinions or knowledge for that of the medical professional.

As a matter of basic ethics, it is clear that the counselor is never to pass on inaccurate or misleading information to the client. Nor should the counselor ever direct the client to deviate in any way from the medical regimen as set by the medical professional. More complex ethical concerns include discerning what information is within the scope and practice of a counselor and what information is reserved as part of the medical practitioner's purview only. According to many judicial decisions (Allberry v Parkmor Drug, Inc., 2005; Ingram v Hooks Drugs, Inc., 1985), the responsibility for informing the client of the potential intended and unintended effects of medicines or medical activities belongs to the medical professional. Indeed, pharmaceutical companies instruct medical professionals who are then learned intermediaries. Even the pharmacist who fills the prescription does not carry the same responsibility as the medical professional; although, it has recently been proposed that the pharmacist carries greater responsibility than has historically been the case (Barney, 2003). Still, the pharmacist and counselor can serve a critical supplementary role by providing information and education in line with the medical professional at a time when the patient/client is more likely to retain such knowledge. Counselors who provide supplemental education must be careful to never reduce the client's respect for or confidence in the medical professional and the prescribed regime. To be ultimately helpful, the counselor must have accurate information about the expected effects and common and dangerous side effects of the

medications a client is taking. This allows the counselor to assist the client in knowing when immediate medical attention is necessary, when mild symptoms are considered normal, and when symptoms or lack of improvement necessitate revisiting the medical professional for adjustment in the medical regimen in a timely manner. The counselor never provides medical treatment or medical advice as this is the purview of the medical professional.

Building Relationship With Medical Professionals

The above insight into the work world of the medical professional can serve as a helpful background for building a positive professional relationship. To add to this knowledge, the counselor can follow some simple guidelines. For instance, the counselor may find greater success in partnering with the medical professional when phone calls and e-mails are pithy and clear. The medical professional typically has little time outside of the required protocols and procedures of the job. A counselor may be better received by the medical professional who can offer assistance such as providing services to patients that lead to less demand on the doctor. While it is a matter of ethics as noted above, it is also a deterrent to the professional relationship to challenge the expertise of the medical professional. A counselor who has questions about the protocol, procedure, or prescriptions provided by the medical practitioner should be careful about assuming deficit; rather, the counselor can ask to be edified regarding the issue which may allow the medical professional to explain sufficiently enough to clarify. There may be occasions where it is beneficial for the counselor to offer information or insights to the medical professional—particularly if the counselor holds information that might jeopardize the medical regimen such as current substance use or other hazardous activities. That said, the counselor must have secured the appropriate release of information to do so. Unless there is imminent danger, the counselor should not push information on a medical professional who does not want it. Finally, the counselor who has patience and can wait for returned calls or e-mails and is warm and receptive to them when the medical professional has the time is apt to be better received in general. The counselor should be patient unless the situation warrants urgency. If the urgency is a point of potential harm, a client should be referred back to the medical professional or emergency room immediately—even calling for emergency services such as EMTs or an ambulance as needed. In any case, it is important to be thoughtful of the medical professional's time and resources. Being nonintrusive, patient, helpful, and collegial help to assure on-going teamwork that increases the probability of concordance for the client.

Counselors may provide assistance to clients and medical professionals from any number of venues. While the private practitioner may find an occasional medical professional unwelcoming of their support, many will be relieved to have the added assistance via consultation from a distance. Some medical practitioners have included counselors in their offices and create business arrangements conducive to reimbursable counseling practices that assist in raising concordance. In any case, the counselor must make clear their role and function and keep clear boundaries between the employment of their own expertise and that of the medical professional.

Counselor Activities Supporting Concordance

The above knowledge, skill, and relationship building form a base from which the counselor works with the client to increase concordance. Again, the counseling relationship is foundational to all else; consequently, the counselor strives to build and maintain a positive, strong counseling relationship with all clients (Lambert, 2001). The counselor is also careful to promote a positive, strong relationship between the client and the medical professional. To do so, the counselor carefully supports the medical professional's expertise, never demonstrates a negative attitude in act or word regarding the medical professional, and respectfully offers support to the client in adhering to the medical regimen as prescribed.

Another activity that the counselor can offer is to educate the client regarding the regimen. Educating the client is central for the medical professional to ensure concordance (Atreja, Bellam, & Levy, 2005), yet lack of time can limit the amount of information delivered. What is more, patient anxieties may create limited retention of information during the office visit (Haskard Zolnierek & DiMatteo, 2009). The counselor can offer the client information about the client's condition, which can be especially important given the limited retention most patients have of the information provided during the medical appointment (Kessels, 2003). The counselor can provide information regarding what the client should expect of the medication or other protocols, how to identify normal side effects, how to determine unsafe side effects, and how to talk with the medical professional so as to share pertinent information that the client might otherwise not deliver. Taking the time to reiterate this material can assist in the client experiencing self as a partner in the process with ownership for the treatment plan (Dugdale, Epstein, & Pantilat, 1999). This increases the probability of concordance.

A counselor also may provide the kind of education and support to the client's family or caregiver that is needed to support the client in maintaining the protocols and procedures outlined in the treatment plan. It is not uncommon for family or caregivers to be unfamiliar with the medical professional and not attend appointments with the client (Sperry, 2006). Even when family and caregivers do attend, they may also not retain or understand the regimen entirely. A counselor can reiterate and further elucidate the basic issues involved in the client's disease or issues, the protocol the medical professional prescribed, what side effects are concerning and which are normal, and what to do if unsafe symptoms arise. Concerns can be eliminated and problems can be avoided by this increased education for client, family members, and caregivers.

Finally, a counselor can provide critical information to the medical professional so long as appropriate release of information has been retained. This information might include daily activities or habits of the client that may impede the success of the designed protocol. Substance abuse issues that have been undisclosed, for example, can deteriorate the success of the regimen at least and can be hazardous when combined with certain medications at worst. Information regarding eating disorders, self-mutilation, and reckless behaviors can provide necessary insight for the medical professional who can then tailor the regimen to increase safety or more realistically predict outcome. The counselor can also provide to the medical provider information about current symptoms and side effects the client is experiencing.

The counselor's role in concordance for clients and their medical professional can be a critically helpful one. The counselor is wise to be prepared with knowledge and skills related to the following roles: 1) understanding the medical world; 2) building and maintaining relationships with medical providers; 3) building and maintaining a positive and strong counseling relationship with the client; and 4) working ethically with both the medical professional and the client in order to increase the client's understanding of his or her medical condition, the protocols prescribed, the side effects that are benign, and those that merit concern and action. Indeed, the counselor's role is critical in supporting concordance and is a growing need in our changing medical world.

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Appendix

PHARMACUTICAL	
QD or QDay	Once each Day
QAM	Each Morning
QPM	Each Evening
QID	Four times each day
QHS	At Bedtime
BID	Two times each day
PO	By mouth
PRN	As needed
TID	Three times each day
MEDICAL CHART	
A&Ox3	Alert and oriented to person, place, and time
ABx	Antibiotics
AC	Before eating
ADL's	Activities of daily living
ADR	Adverse drug reaction
AOB	Alcohol on breath
BAC	Blood alcohol content
BP	Blood pressure
BW	Body weight
Bx	Biopsy
C/o	Complains of
D/C	Discharge
DDx	Differential diagnosis
DNR	Do not resuscitate
Dx	Diagnosis
ETOH	Ethanol (alcohol)
F/u	Follow up
G#P# (insert numbers)	Gravida # (number of pregnancies a woman has had), Para # (number of births).
GCS	Glascow Coma Scale
HA	Headache
HBP	High blood pressure
HTN	Hypertension
HR	Heart rate
Hx	History
MVC/MVA	Motor vehicle crash/ Motor vehicle accident
Npo	Nothing by mouth
N/V	Nausea or vomiting
OTC	Over the counter
PCP	Primary Care Physician
Rx	Prescription
S/p	Status Post
STI	Sexually Transmitted Infection
UA	Urinalysis
YO or y/o	Year Old
DISEASES/ DIAGNOSES	
MDD	Major Depressive Disorder
MDE	Major Depressive Episode
MMSE	Mini-mental state examination or Folstein test
SIDS	Sudden Infant Death Syndrome

"Medical Abbreviation List," n.d.; Shiel & Marks, 2013.