

Non-compliance in dermatologic diseases

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Non-compliance is common to all diseases but more common in dermatologic disorders.^[1] Quite often we come across patients who do not respond to the treatment in spite of a correct diagnosis, established by specific investigations. We wonder as to what went wrong? It is not the wrong diagnosis or wrong treatment which caused treatment failure. In Feldman's inimitable words^[2] "such causes can be put into three general categories – poor compliance, poor compliance and poor compliance." The word non-adherence is also used in place of non-compliance. Lee^[3] defines non-adherence as unfilled prescriptions, incorrect dosages, incorrect dosing intervals, skipped doses, or premature cessation of medication.

John Urguhart^[4] described three causes of treatment failure: (a) pharmacodynamics, (b) pharmacokinetic, and (c) pharmionic. First two relate to drug absorption and drug action. The last, pharmionic, refers to poor adherence to treatment.

Non-compliance or non-adherence is so widespread that many consider it the prime cause of treatment failure.^[5] Relapse, if not proved otherwise, is usually the result of non-compliance. It is more common in chronic conditions^[5] like acne, psoriasis, and atopic dermatitis. In chronic conditions, practically half of the patients stop taking the treatment after a year.^[1] Patients often get tired and fed up.^[6] They don't continue maintenance treatment for long periods.

Non-compliance is common in the elderly patients,^[7] those who are afraid of adverse effects of drugs, or when the treatment is complex and time consuming.^[8] In the

Indian scenario, non-compliance is common even in acute conditions. No sooner than the subjective distress is relieved, there is an unpardonable laxity in carrying out both topical and systemic treatments.

Poor compliance is more common in topical treatment as compared to systemic treatment.^[9] It is more time consuming than popping a pill. Sometimes the smell of a topical medicament is a deterrent. It may be staining. It is described as messy. Some may cause stinging or burning sensation. All these affect the adherence.^[10]

John Urguhart^[4] has quantified the patients, as per their compliance levels, by the rule of "one-sixth".

1. One-sixth of the patients carry out the treatment exactly as advised.
2. One-sixth take all medicines, with some messing the timing of the medicines.
3. One-sixth occasionally miss a single day's dose.
4. One-sixth take drug holidays for three or more days a few times a year.
5. One-sixth have frequent drug holidays.
6. The last one-sixth take a few or no doses at all.

Yet, all of these patients claim perfect or near-perfect compliance!

CONSEQUENCES OF NON-COMPLIANCE

Consequences of compliance are many. They include failure of treatment, relapse, resistant infections, side effects of higher dosages, increased morbidity, and unnecessary investigations.

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EVIDENCE FOR NON-COMPLIANCE

Earlier methods of checking compliance like pill counts, weighing, or interviews are unreliable.^[11] Same is true about chemical markers. Modern electronic monitoring systems are more reliable.

In a study,^[12] 37 atopic dermatitis patients were prescribed 0.1% triamcinolone ointment to be applied twice a day for eight weeks. Unknown to them electronic monitors were used to measure adherence. Out of 37, 27 completed the treatment. The mean adherence from the baseline to the end was 32%. Perhaps, the initial good response lowered the adherence as the disease cleared. In this study, parental factors also influenced the adherence, as the mean age of the patients was 4.4 years.

It is estimated that 30–40% of all medications for chronic conditions are not taken as prescribed.^[13] Adherence to oral and topical therapy for psoriasis was 61% according to objective and self-report studies.^[14] These data were arrived at by pill counts, medication weights, and patient interviews. In another study,^[15] 29 psoriasis patients were told to apply 6% salicylic acid gel in combination with 0.1% tacrolimus ointment or a placebo twice a day for eight weeks. They were given diaries for monitoring them, but were not told of electronic monitoring. Adherence rate was about 55% by the electronic monitors but far higher, 90–100% was shown in the diaries.

Compliance to oral isotretinoin or a conventional therapy in 687 OPD patients of acne was 65%.^[16]

CAUSES OF NON-COMPLIANCE

These are many and are listed in Table 1.

Patient-related causes

(1) Economic: The cost of treatment may be far more than expected by a patient.^[17] In chronic conditions, requiring

prolonged treatment, the cost multiplies, rendering it out of the reach of the patient. Patients try to economize by applying topicals less frequently or by taking systemic drugs also less frequently than advised. They also stop the treatment as soon as the symptomatic improvement is noticed, only to have a relapse.

(2) Inconvenience: Majority of skin patients are ambulatory. They attend to their routine work. Frequently, the advised-treatment interferes with their work routine. Frequent topical applications or frequent dosing of the drugs are inconvenient. Patients' inconvenience should be understood. Otherwise a patient is dissatisfied and feels less cared, leading to reduced compliance.^[18] Higher the number of daily doses, less the chance that the patient will take them. Adherence is inversely related to the number of daily doses or applications.^[19]

Some instructions may not be practical from a patient's point of view. A factory worker is unable to avoid irritating or sensitizing work contacts. An outdoor worker cannot avoid exposure to sun. A housewife has to work with washing-soaps, detergents, and cleansers. After making the patients aware of the causative role of these factors, some practical suggestions to mitigate the ill effects of these should be suggested. Medicines alone will not solve these problems.

(3) Poor understanding: This is a very common cause for non-compliance. Patients do not comprehend the scientific cause/s of the disorder, the rationale of treatment, or the treatment goal. Their basic knowledge of the anatomy and physiology of the body, causes of the diseases, and aims of the treatment is limited. Besides, they have preconceived notions, derived from the traditional systems of medicines, of the diseases and their causation.

A dermatologist has to convey, in simple language, the scientific explanation of the disease, its treatment goals, and details of the treatment. Unless all the queries of the patients are answered to satisfaction, the compliance level always suffers.

(4) Fear of adverse drug effects: Non-compliance is very common in patients who are fearful of adverse drug reactions.^[20] Their constant plea is to prescribe them safest medicines, in the smallest doses, and for the shortest period. The fear of drugs is derived from the notion that modern medicines suppress a disease, unlike traditional systems of medicines, and cause untoward reactions. Some educated patients read the information leaflet accompanying a drug

Table 1: Causes of non-compliance

Patient related	Dermatologist related
Economic	(1) Lack of doctor – patient bonding
Inconvenience	(2) Lack of communication
Poor understanding	
Fear of adverse reactions	
Psychological problems	
Noncooperation	

package. They are haunted by the fears of all the adverse reactions listed in the production information leaflet.

Even educated patients have a steroid phobia.^[21] Steroids are viewed as dangerous drugs, to be shunned like an evil. Even topical steroids are disliked. Unless these apprehensions are not removed, patients will not use them as advised. They should be assured of their therapeutic utility, if used with discretion and under supervision of a dermatologist.

(5) Psychologically disturbed patient: Chronic nature of many skin disorders make some patients psychologically apathetic to treatment.^[22] It is difficult to treat a patient having a psychological problem like depression, an anxiety disorder, emotional imbalance, or a phobia.^[23,24] These patients are less likely to follow treatment instructions. An Italian study,^[24] shows a 50% adherence rate in psoriasis patients who had concomitant psychiatric morbidity. Chronic skin conditions like psoriasis, acne, vitiligo, or an eczema make patients depressed and apathetic, affecting their treatment adherence. Conversely, there is a high association between chronic disorders of skin and psychological morbidity.^[23] There is a strong inverse relationship between Dermatology Life Quality index and medical adherence.^[14]

(6) Patient non-cooperation: These patients do not want any change in their daily routine, their habits, or life style.^[25] They do not want any restriction on their drinking or diet. They tell at the outset that all “mysins” or “steroids” should not be prescribed. Many cannot “swallow” tablets or capsules or they have a distaste for “liquid medicines”. They would not use open footwear even though they have tinea pedis. They cannot give up using a heavy makeup even though they come to a dermatologist for the treatment of acne cosmetica. Some exercise a veto power to cancel some prescribed drugs because they do not agree with their “system”.

They should be explained the necessity to comply with the instructions. If they do not cooperate, obviously they cannot be helped to an extent a dermatologist would like.

Dermatologist related

(1) Lack of bonding: A good compliance requires strong bonding between a dermatologist and a patient. Only a strong doctor–patient relationship can foster patient compliance.^[26] Elias and Williams^[27] advise an aspiring dermatologist in these words, “Make each patient feel important, show respect for your patient, listen and learn,

know your patient’s expectations...” A dermatologist should empathize with the patient, by showing concern for a patient’s anxieties, his hidden fears regarding the impact of the disease on his health, his personal life, his work, and on his personal appearance. A patient would like to know about the transmissibility and inheritability of the disease to the family members.

Discussion with the patient should be in clear, non-technical language which patients can understand.^[28] Days are over when patients took medicines blindly. The new generation of patients demands more information about the cause of the disease, the action of the medicines on the disease, and their possible side effects or untoward effects.^[25]

(2) Lack of communication: A communication gap between the dermatologist and the patient is the commonest cause of non-compliance. Most patients lack the background knowledge to understand concepts of the disease etiology, diagnosis, and treatment. While explaining to the patient, one should have a correct assessment of a patient’s baseline level of knowledge of a disease. The explanation should connect to that level so as to bridge this communication gap^[29] and answer any queries in jargon-free simple language. A dermatologist should patiently talk in an unhurried way while answering any queries. A hurried consultation will dissatisfy a worried patient, leading to non-compliance or change of the therapist.

MEASURES TO ENCOURAGE COMPLIANCE

How to improve compliance? Various measures can be taken to encourage compliance.

(1) Empathize: A dermatologist should empathize with the patients.^[15] A dermatologist should have a friendly manner while approaching a patient. He should sound as someone interested in helping the patient in his suffering. He should explain the treatment goals and time frame to achieve them. An examination without using the hand-gloves sends a strong message to the patient. His fear of a stigma will be overcome. Physical touch is a powerful bonding gesture, which a patient instinctively appreciates.

(2) Practical approach: A treatment schedule should not cause a major disruption in a patient’s daily life.^[25] As majority of skin patients are ambulatory and go about their daily routine job, treatment should not cause inconvenience, particularly in chronic conditions. A treatment regimen should fit in their daily life. An ideal treatment may not

always be a practical one. Some adjustment is required to improve the compliance. Less frequent dosing by using long-acting preparations or using topicals requiring less number of applications leads to a better compliance.

It is wise to prescribe only a few, very essential, urgently required drugs while treating an acute condition. A plethora of drugs and applications with differing timings of the dosing and applications will succeed in confusing a patient or care takers, resulting in inaccurate, incorrect treatment. After the acute condition subsides, other supplementary drugs may be added.

Since skin conditions are less disabling, some patients may genuinely forget to take medicines once the severity of the condition is reduced. For such patients, building memory associations like applying creams while going to bed or immediately after bath might work. For busy persons, even reminder alarms can be put to good use.

(3) Issue clear instructions: Clear-cut instructions of the topical and systemic therapy should be given in writing, preferably in a patient's mother tongue. The prescription should be written in legible handwriting. Explaining prescription details should not be left to an assistant or a nurse. Time spent for this purpose is worth it as it builds a bond of trust in the patient's psyche.

(4) Follow-up visits: It has been brought out in a number of studies that adherence levels improve remarkably as the follow-up date approaches.^[12,17] It is thus helpful to have a shorter interval between the follow-up visits, to keep up the morale of the patient.

(5) Provide cheaper treatment: Simple, minimum treatment will reduce the cost of the treatment. Generic products are always considerably cheaper. They may be prescribed instead of branded products. Even among the branded products there are wide price variations. For non-affording patients the cheaper branded ones or generic drugs may be prescribed.

A dermatologist must offer some help by reducing the charges or refer a patient to a charitable or a public health center which offers semi-free or free medical help.

(6) Patient education: Use of visual aids like pictures, diagrams, or video presentations are very useful in communication^[25] to patients. Patient-education literatures like brochures or leaflets, written in a patient's mother

tongue, in simple language will have a major impact on spreading health awareness. It should give a patient an insight into his/her problem and explain the treatment in simple language and emphasize the need to continue treatment, in chronic condition, till its goal is achieved.

A patient-education literature should not frighten a patient by describing all conceivable complications of the disease under treatment or mention all the listed untoward reactions listed in the medical textbooks.

(7) Encourage patient participation: Encourage a patient to participate in the treatment planning. A patient's opinion should be taken while selecting a vehicle. Periodically a patient should be asked whether topicals agree with his skin. If not, an alteration in the concentration can be made or another one can be prescribed. If a patient feels that a particular drug causes an untoward reaction, the drug can be changed. Thus, a therapeutic alliance should be built with the patient to enhance compliance.

(8) Encourage participation by family, friends or peers: When compliance is extremely important as in antiretroviral therapy or even antituberculous or antileprosy therapy, one may try to identify and involve patient's social supports systems like the immediate or extended family or friends in giving reminders to the patient or take the responsibility of administering the drugs themselves.^[30] For conditions that are chronic, interaction with a peer group of similarly affected persons is helpful in motivating patients to begin or continue their therapy.

To conclude, it should not be forgotten that making a patient to adhere to treatment is as important as making a correct diagnosis and prescribing a correct treatment.

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