1. Introduction of the Case

Sunanda (name changed), 58-year-old female, educated up till 8th class, homemaker was suffering from hypertension for past one year. She was diagnosed at our rural health post Kheri, when she reported to us with an episode of epistaxis. She was put on antihypertensive and her blood pressure was under control for the last one year till January 2018. She was compliant on medication throughout this period and used to report to our clinic almost every week for monitoring and getting the medicines.

Health worker of health post Kheri brought to our notice that Sunanda had stopped taking her medicines of high blood pressure and had become non-compliant for sometimes. On home visit we came to know about the reasons of non-compliance. We counselled and addressed her problems that improved the compliance.

In this case study we are presenting the chain of events that led to non-compliance and how that could be addressed. We have

Running Title: Non-Compliance for Hypertension

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Abstract

This is a case of Hypertension, where patient turned non-compliant due to tragic circumstances at home that shattered her completely. Home visits helped to understand the issue and arrange expert psychiatrist counselling and treatment for her severe depression. This helped to pull her out towards normality and she became compliant to treatment of Hypertension as well. This case study demonstrates extra edge that Community Medicine Speciality has, to treat cases in holistic circumstances compared to clinic oriented care only. Case has been discussed in context of various theories of behaviour Change Communication.

Key Words: Hypertension, Depression, Compliance, Trans theoretical Model,
also discussed the applications of behaviour change communication theories to understand the phenomenon.

**Socio-economic Background of the Case**

Sunanda, basically belonging to the state of Himachal Pradesh, has been living with her family in the village Kheri for the past 36 years. She got married at the age of 21 years to Mr. Singh who was a businessman (Ice cream factory) by profession and had two sons born in 1983 and 1984 respectively. Her husband used to work in his own ice cream factory in summers and do agricultural work in winters. Her elder son was an electrician by profession and her younger son used to work with his father in the ice cream factory. They belonged to Upper Middle socioeconomic status as per modified Kuppuswamy scale.

She was an active member of village activities and was a member of Chetna Health Committee at Village Kheri. This committee has members from the village including Sarpanch, other Panch members, frontline workers of healthcare (ANMs and Anganwari workers), who are involved to discuss and decide upon the health linked issues of the village. She owned a goods shop in which they had kept daily needs supply. She used to sit in the shop during the day. She used to buy the wholesale stuff for the shop from the nearby town Ambala, around twice a month as per the requirements.

**2. Tragedies, Coping Mechanisms and Non-Compliance**

In last 10 years, she met with the following major tragedies of her life for which she initially was able to cope-up with but later surrendered to the circumstances.

**2.1 Death of elder son in 2008:** The elder son got electrocuted and died at the age of 24 years (year 2007). She was shook by the untimely death of her elder son and was grief struck. But her family and friends helped her get back to the routine after some time. She slowly overcame the grief and resentment over the event. Her younger son got married in the year 2016 and her daughter in law gave birth to a male child the same year and she got busy with them and slowly started to forget about the past events.

**2.2 Death of husband and younger son in March 2018:** Her husband and younger son were going on a two wheeler for some business work around 5-6 Kilometres away from their home only to return by dinner time. They met with an accident just outside the city when a four-wheeler vehicle hit them. Both were seriously injured and called for help but no one came for sometime. Thereafter they were taken to a nearby secondary health care facility where there was no specialist healthcare available and then they were further referred to PGIMER Chandigarh. Her husband died on 9th March after succumbing to the grave injuries and her son fought with the situation but he also died after a period of 10 days.

**3. Cumulative Impact of the Tragedies:**

**3.1 Impact on Patient Sunanda**

Sudden untimely demise of the two key persons of her life was a big blow. She was taken aback with the whole situation. She stopped caring for herself. She stopped taking any medicines after that. She did not visit any hospital or any health center for her condition. During home visit we found that she could sleep for only 3-4 hours per day. She complained about palpitations, restlessness and discomfort all the time since her husband and younger son died. Although she is physically active, had cattle shed around 200 meters away from their home where she goes daily and does activities like bathing the buffalo, chopping grass to feed it and other relevant chores, but she says that she doesn’t feel like doing any work and is anhedonic all the time.
When we first visited her in the month of July her blood pressure was 150/100 mm Hg. She revealed that she wants to end her life. She was not at all bothered about her uncontrolled blood pressure. She just didn’t feel like doing anything anymore. She stopped going out because talking to all her friends and relatives keep reminding her of the events of that day. She gets frequent headache and is unable to sleep at night.

They don’t have any regular source of income anymore. She doesn’t open her shop frequently as she thinks that her regular customers have shifted to other shops because of irregularity of shop opening. She says that “I am not interested in living anymore. I have nothing to look forward to. My own sons, whom I raised with my own hands, have died, so I don’t even want to raise my grandchild because he might also die one day if I touch him.”

3.2 Impact on Other Family Member

Her daughter in law is the only adult member in the home. She is a graduate by education. She does all household chores, takes care of the baby herself and also sits in the shop sometimes. She is also disturbed by the event but she is holding it together for her son. In her own words she says that “I am struggling to maintain my cool every second of the day so that my boy gets a good environment to be brought up in. I will pull everything together and will start working again. There is no use of cribbing about what has already been done. If I will also keep crying whole day, who will look after my son and this house? People of our society keeps on nudging me too while I am crossing the village but I just look down and don’t listen to them anymore.”

She says that with the current behavior of her relatives and mother in law, she can’t afford to nag about the whole situation. She wants to start working soon to earn for her family. She has a two-year-old son who is completely immunized for his age but she did not enroll baby in the anganwadi centre as she had thought to enroll him after he starts walking. But then it got delayed as she got operated for Bartholin cyst twice in last one year.

4. Home visit based Interventions

She was restarted on Tablet Amlodipine 5 mg once a day as anti hypertensive medicine. As she was disturbed psychologically and had no desire to live, authors arranged for Psychiatry consultation at her home, as she had refused to visit any hospital. Psychiatrist diagnosed her as a case of Severe Depression and started her on Tablet Fluoxetine 40 mg and T. Clonazepam 0.5 mg once at night. All the medicines for hypertension were also provided to her at home free of cost by the multipurpose health worker (MPHW) of the institution. MPHW visited her house every week and checked her compliance for medicines. Her daughter in law also reported to the health post if she is not taking medicines every day. Dosage of Tablet Fluoxetine were adjusted as per the Psychiatrist prescriptions.

5. Impact of Interventions

Now she is on T. Amlodipine 5 mg once a day, T. Fluoxetine 60 mg once a day and T. Clonazepam 0.5 mg once every night since July 2018. Her follow up BP recordings are 140/90 mm of Hg, 130/78 mm of Hg and 128/78 mm of Hg respectively every fortnight. She was started on anti depressive drugs on 24th July 2018 and she started having the positive response by the middle of August.

She reports feeling light headed. Now she doesn’t always have an urge to run away from everything. In between when we enquired she was taking only 40 mg of Fluoxetine every day. But during our home visits to her place, we explained her
importance of the right dose to be taken for which she complied to and started taking them. Now she says that “I am feeling much better after initiation of therapy. I am able to sleep better and feel much calm inside. But I am still not going to raise my grandchild as I don’t trust myself with lives around me”.

6. Discussion

Various theories of Behaviour Change Communication explain the pathways of how and why people adopt a particular behaviour. This knowledge is useful to predict and take appropriate actions for behaviour change communication.

Bandura’s Social Cognitive Theory [1-2] puts emphasis on the external factors for behaviour change. There is triad of interaction of Personal factors, environmental factors and behaviour. This theory defines “Outcome Expectation” as important variable that can drive behaviour. This expectation may also be embedded in the environment as something which has become social norm in the society. In our case, when Sunanda do not want to take care of the baby as she feels that baby will die, this may be rooted in the social norms. This is common discourse and practice in some societies to label women as culprit for something bad happening in the family. Outcome expectation of touching the baby is negative: baby will die, so she avoids this behaviour. Emotional coping and Self control are other parametres that can influence behaviour as per this theory. We found that with first tragedy, she was able to cope up with emotions and could control herself. Marriage of younger son and birth of newborn were happy events that helped to cope up. However, second bigger tragedy shattered her self control and coping strategy. As per Bandura, even people with strong sense of self efficacy may not perform if there is no incentive. Sunanda was a strong women with good social capital. However, husband and children are the core in Indian rural families on which women depend and thrive. They are big incentives for them. Even if they are not economically productive or they may be disabled, but they are pride of the family. When this incentive was reduced with first tragedy, still there were two other persons to keep the interests of Sunanda alive. However with second tragedy, all three persons got eliminated and with that entire interest of Sunanda in herself also got reduced to ashes.

In Transtheoretical Model [3] individuals move through six stages of change: pre-contemplation, contemplation, preparation, action, maintenance. Termination (last step), not part of the original model is less often used in application of stages of change for health-related behaviours. For each stage of change, different intervention strategies are recommended to move the person from one stage to the other. Classically in this model, in pre-contemplation people are not aware about the risks of unhealthy behaviour. When they become aware of the issues, they are classified in contemplation phase. They take some time in preparation phase, when after becoming aware they are able to reach to the point of taking some actions. Then comes the stage of action. It requires the enabling environment to take actions and then continue in maintenance phase.

In this case study, Sunanda initially was aware about the problem of Hypertension, she had taken actions for treatment and was compliant. She had coped up to the first tragedy, and remained compliant even after that. However, when after the second double tragedy she lost interest in herself, and discontinued the treatment, it may be because the tragedy changed the entire discourse of the contemplation phase. Now she started viewing herself of no use. She started feeling herself as a sin, as if anyone, who will come in her contact will
die. In this context she was unaware that her behaviour is problematic or produces negative consequences to the family around her. This behaviour can be considered as pre-contemplation phase. The challenge to change this pre-contemplation to contemplation was difficult, as she was under severe clinical depression. Thus, with repeated visits and professional counselling of psychiatrist, she became convinced to take psychiatric treatment. These interventions were useful in pulling her to contemplation phase. She started complying to treatment. However, even this intervention was not good enough to change her perception about care of the baby. She still feels that if she will care for the baby, it will also die.

7. Conclusions
This case study demonstrates that it is important to go to the roots of the non-compliance to address the problem. Facility based management can give data on- what percent are non-compliant? For non-compliance improvement, general recommendation is to improve the awareness of community. However, home visits in non-compliant cases can help delineate the factors and provide appropriate support to improve the compliance. It is also important to identify and address the deep rooted social norms that prohibit people in taking rational decisions.

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9. References