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THE SECOND VICTIMS PHENOMENON AMONG CLINICIANS: A HIDDEN ICEBERG IN HEALTHCARE

General Medicine

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ABSTRACT

Objectives: Second victim experiences can affect the well-being of clinician and compromise patient safety and outcome of healthcare delivery. The purpose of this study was to assess the level of second victims in among clinicians, surgeons and medical officers and their effect on them. Level of problem and organizational support were examined concurrently because it was hypothesized to explain the potential relationships between distress and work-related outcomes.

Methods: A cross-sectional, questionnaire based survey of clinicians directly involved in patient care (N = 530) was analyzed by using hierarchical linear regression. The Second Victim Experience and Support Tool i.e SVEST (27 items representing 7 dimensions, 5 outcome) was completed by 530 healthcare providers involved in direct patient care. The survey collected responses on second victim–related psychological and physical symptoms and the quality of support resources. Desirability of possible support resources were also measured. The SVEST was assessed for content validity, internal consistency, and construct validity with confirmatory factor analysis (CFA).

Results: CFA results suggested good model fit for the survey. Cronbach's alpha reliability scores for the survey dimensions ranged from 0.62 to 0.84. The respondents show various outcome as Intentions to turnover , Absenteeism, Suicidal tendency ,Depression and Breakup in family in significant number. The most desired second victim support option were "An employee assistance program should be there that can provide free counseling to employees" followed by "A respected peer / Senior from same or other specialty to discuss the details of what happened"

Conclusions: The SVEST can be used by healthcare organizations to evaluate second victim experiences of their staff as well as the quality of existing support resources. It can also provide healthcare organization leaders with information on second victim–related support resources most preferred by their staff.

KEYWORDS

Second victim , SVEST tool , Clinician , support

INTRODUCTION

Second victims are health care providers who are involved in an unanticipated adverse patient event, in a medical error and/or a patient related injury and become victimized in the sense that the provider is traumatized by the event. Frequently, these individuals feel personally responsible for the patient outcome. Many feel as though they have failed the patient, second guessing their clinical skills and knowledge base."In 2000, Wu introduced the term "second victim" to describe these individuals (with patients being the first victims)[1].

A second victim has been defined by » Scott et al. "a health care provider involved in an unanticipated adverse patient event, medical error and/or a patient related-injury who become victimized in the sense that the provider is traumatized by the event. Frequently, second victims feel personally responsible for the unexpected patient outcomes and feel as though they have failed their patient, and feel doubts about their clinical skills and knowledge base."

A survey has revealed that 1 in 7 healthcare providers experience second victim syndrome . Several other studies reveals its prevalence varying from 46 % to 60 % .In Indian subcontinent, very few reports published on second victims . It is happening with clinician but they keep this incident within themselves or within their unit concerned. So, there is a pressing need for healthcare organizations to invest in support resources and programs in order to reduce or prevent the consequences of second victim experiences.[2]

However, there are currently no validated survey tools to evaluate second victim experiences and the adequacy of support resources. Thus, the purpose of this study was to develop and validate the Second Victim Experience and Support Tool (SVEST)[3], a survey instrument that can assist healthcare organizations in implementing and tracking the performance of support resources for second victims. This study was the first to report the results of a survey that has been validated through assessments of content validity, construct validity, and internal consistency.

Methods

Setting, Procedure, and Participants

This study was conducted in 2019 among the clinician working in various Pvt and Public hospitals across India. Participants were invited voluntarily to complete the questionnaire through email, google doc and other internal communications. It was sent to 1000 physician, surgeons, pediatrician, gynecologist ENT, Eye, orthopedician and General Duty MO (MBBS). Consent to participate was obtained electronically, and participants were informed that their responses would be kept confidential and anonymous. An online version of the SVEST was created with the items randomized for each participant to prevent ordering effect biases. Out of 1000 clinician, 530 participants responded.

Questionnaire development

Hinkin's guide were used for developing questionnaires[4]. The 7 dimensions were *psychological distress*, *physical distress*, *colleague support*, *supervisor support*, *institutional support*, *non-work-related support*, *and professional self-efficacy and 5 outcome Intentions to turnover, Absenteeism, Suicidal tendency, Depression and Breakup in family were asked*. Items were written to reflect first-person perceptions of each dimension, and responses were measured on 5-point Likert scales, with anchors ranging from 1 ("strongly disagree") to 5 ("strongly agree").

After the initial survey items were written, 30 individuals (10 Surgeons, 10 physicians, and 10 dentists) not part of the research team were invited to participate in a content validity assessment exercise and after validation the questionaries' were forwarded to other 1000 participants .

The factorial structure of the survey was assessed by CFA, using AMOS version 4.0. Fit indices used to evaluate model fit were chi-square, comparative fit index (CFI), and root mean square error of approximation (RMSEA). CFI and RMSEA have been commonly used to report CFA results and are considered superior to other fit

metrics (e.g., goodness of fit index) because of their insensitivity to sample sizes.[5]

RESULTS

The result were complied. The participants were found to be varied experience with respect to tenure in respective specialty. The participant demography as shown in table 1.

Table 1 : Participants' (*N* = 530) with tenure in years by hospital and specialty

Sr No	Participants	1-5 Yrs	5 – 10 Yrs	10- 20 Yrs	20-30 Yrs	30 yrs	Total
1	Surgeon	28	38	18	12	8	104
2	Physician	22	32	21	6	14	95
3	Pediatrician	14	8	12	4	6	44
4	Gynecologist	26	6	12	11	4	59
5	Orthopedician	12	7	2	4	8	33
6	ENT Spl	18	4	2	6	4	34
7	Eye Spl	24	2	3	4	2	35
8	General Duty MO (MBBS)	56	25	20	17	8	126
	Total	200	122	88	64	56	530

The result also shown out of 530 volunteer clinicians 151 (28 .49 %) were faced second victim phenomenon in their career as shown in table 2 & Fig 1. Some of them narrated they suffered from this problem but realize when they received this questionnaire.More such phenomenon seen in clinicians with just basic MBBS qualification (39 %) and in Gynecologist (32 % for doing unwarranted Cesarean section) .

Table 2 : Number of second victim cases

Sr No	Participants	1-5 Yrs	5 – 10 Yrs	10- 20 Yrs	20-30 Yrs	30 yrs	Total(% of second victims)
1	Surgeon	12/ 28	11/ 38	4 / 18	2/12	1/ 08	30 / 104 (28 %)
2	Physician	4/ 22	8/32	6/21	1/6	1/ 14	20/ 95 (21 %)
3	Pediatrician	4/14	2/8	4/12	0/4	0/6	10/44 (23 %)
4	Gynecologist	12/26	4/12	1/ 6	2/11	0/ 4	19/ 59 (32%)
5	Orthopedician	4/ 12	2/ 7	0/2	0/4	2/8	8 / 33 (24 %)
6	ENT Spl	6/ 18	0/4	0/2	1/6	0/ 4	7/ 34 (20 %)
7	Eye Spl	6/ 24	1/ 2	0/ 3	0/4	0/2	7/ 35 (20%)
8	General Duty MO (MBBS)	26/ 56	8/ 25	12/ 20	4/ 17	0/ 8	50/ 126 (39 %)
	Total	74/ 200 (37 %)	36/122 (29 %)	27/ 88 (30 %)	10/ 64 (15 %)	4 /54 (7 %)	151/ 530 (28.49 %)

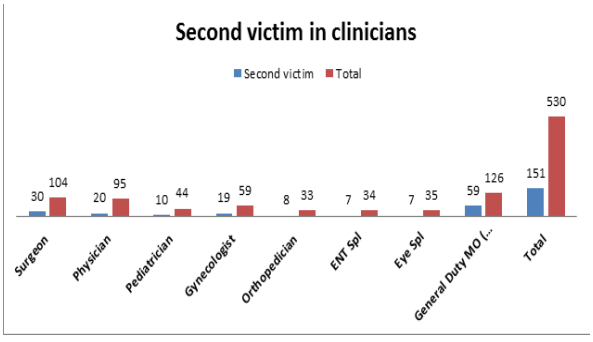
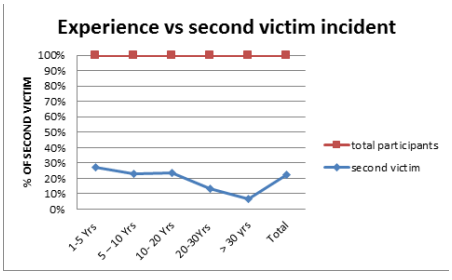


Fig 1 : Second victim in clinicians specialty wise

The result also revealed that as experience progressed this phenomenon decreased. It decreased from 28 % to 8 %. It means second victim phenomenon decreases with experience.



This study also revealed that second victim phenomenon happened with 151 out of 530 (28.49 %) clinicians. Out of 151 second victims, roughly 73 (48 %) respondents experienced physical distress and 78 (52.25%) experienced psychological distress from a second victim experience either once or on multiple occasion as shown in table 3 . These findings have implications for patient safety, as the effects of a second victim experience place the healthcare provider at risk for committing medical errors.

Table 3: Survey item loadings for the revised 7-factor model with 25 items[3]

Variable	Psychological Distress	Physical Distress	Colleague Support	Supervisor Support	Organizational Support	Non-work-related support	Professional Self-Efficacy
I have experienced embarrassment from these instances.	53 %						
My involvement in these types of instances has made me fearful of future occurrences.	62 %						
My experiences have made me feel miserable.	48 %						
I feel deep remorse for my past involvements in these types of events.	46 %						
The mental weight of my experience is exhausting.		51%					
My experience with these occurrences can make it hard to sleep regularly.		47 %					
The stress from these situations has made me feel queasy or nauseous.		39 %					
Thinking about these situations can make it difficult to have an appetite.		57 %					
I appreciate my coworkers' attempts to console me, but their efforts can come at the wrong time.			34 %				
Discussing what happened with my colleagues provides me with a sense of relief.			56 %				
My colleagues can be indifferent to the impact these situations have had on me.			43 %				
My colleagues help me feel that I am still a good healthcare provider despite any mistakes I have made.			49 %				

I feel that my supervisor treats me appropriately after these occasions.				32 %			
My supervisor's responses are fair.				29 %			
My supervisor blames individuals.				76 %			
I feel that my supervisor evaluates these situations in a manner that considers the complexity of patient care practices.				42 %			
My organization understands that those involved may need help to process and resolve any effects they may have on care providers.				28 %			
My organization offers a variety of resources to help me get over the effects of involvement with these instances.				24 %			
The concept of concern for the well-being of those involved in these situations is not strong at my organization.				92 %			
I look to close friends and family for emotional support after one of these situations happens.						89 %	
The love from my closest friends and family helps me get over these occurrences.						92 %	
Following my involvement I experienced feelings of inadequacy regarding my patient care abilities.							82 %
My experience makes me wonder if I'm not really a good healthcare provider.							83 %
After my experience, I became afraid to attempt difficult or high-risk procedures.							62 %
These situations don't make me question my professional abilities.							42 %

This study also revealed the support from coworkers (34 %) were limited , but discussion with colleagues provides a sense of relief in most of the clinicians. Most of clinicians (43 %) also state that colleagues helped them to feel that they are a good healthcare provider despite any mistakes they have made.

In Indian healthcare setup the role of supervisor were not appropriate after these occasions, unfair and blames individuals (68 %). Only few supervisors (24 %) at higher centers were helped the second victims clinicians. The organization where these clinicians (28 %) were working understands that those involved may need help to process and resolve any effects they may have on care providers , but reputation loss fears and non-disclosure lead to limited role. Very few organization (24 %) offers a variety of resources to help them to get over the effects of involvement with these instances.

Most clinicians (89 %) revealed in these situation close friends and family were only way out for emotional support. The love from their closest friends and family helped them (92 %) to get over these occurrences. Following involvement most of them (82 %) experienced feelings of inadequacy regarding their patient care abilities. After these experiences, they (62 %) became afraid to attempt difficult or high-risk procedures.

When the participants were asked what support they want to overcome this problem more than 94 % suggest "An employee assistance program should be there that can provide free counseling to employees outside of work" and "A respected peer / Senior from same or other specialty to discuss the details of what happened" as shown in table 4.

Table 4 : Support Option for second victim individual[3]

Support Option	% Desired	% Not Desired	Mean	SD
1. A respected peer / Senior from same or other specialty to discuss the details of what happened as supportive care	89	11	3.41	1.11
2. A discussion with my unit head or supervisor about the incident	82	18	3.01	0.91
3. An employee assistance program should be there that can provide free counseling to employees (by formation of second victim rapid response team with laid out protocol)	94	6	3.08	0.78
4. The opportunity to schedule a time with a psychological counselor at hospital to discuss the event	80	20	3.11	0.90
5. A confidential protocol should be there to get in touch with someone 24 hours a day to discuss how my experience may be affecting me	87	13	3.04	1.00
6. Long leave / some leave should be offered to such victims to cop-up	78	22	2.08	0.89
7. Non Punitive disclosure should be done	94	6	1.08	0.77
8. Critical Incident and stress management program	89	11	1.06	0.68

The outcome was also revealed which were alarming as shown in table 5.

Table 5 : Outcome of second victim phenomenon

Outcome	Percentage
Intentions to turnover	6 %
Absenteeism	8 %
Suicidal tendency	1.3 %
Depression	8 %
Breakup in family	0.6 %

DISCUSSION

The second victim phenomenon is present in healthcare setup but not given emphasis by the organization. Clinicians are also human being and there is chance of error because of overworked , stress , family problem , job insecurity , financial constraints . There is a belief that doctors can adjust themselves in mental stress but it is not true , they also suffer stress . Attainment of effective coping skills as a powerful "survival" method is a defining characteristic of a resilient individual.[6,7] Supportive interventions for second victims serve as protective factors that can enhance coping skills and optimize the recovery of clinicians suffering the impact of an unanticipated clinical event.[8]

Fig 2 : A Second Victim sufferer

Many second victims express feelings of failing the patient and doubts over their own skill. Some clinician who are second victims have left

their profession, and some have turned to suicide to end their suffering.[9] It is estimated that almost half of the healthcare providers have had a second victim experience during their professional careers, making it essential for healthcare institutions to provide structured support mechanisms to mitigate suffering and promote optimal healing for second victims.[10]

This study reveals institutional leaders with open mind and positive efforts can reduce and prevent the negative consequences of second victim related responses. The SVEST may also be used in research contexts as a comparative tool across organizations, so that inter-organizational second victim related characteristics can be reviewed in a generalizable format.

The 6 common reasons of second victims were patient death, emotional stress, trauma, cardiac arrest, medication error, and alleged child abuse cases[12].

Impact of second victim incident

The impact of an adverse event can be influenced by the outcome of the error and the degree of personal responsibility.

The health care professional can experience a **professional impact**, such as:

- Different attitude within the team
- Insecure feeling in presence of the team
- Different attitude in presence of patients and their family
- Uncertainty which elevates the chance in making other mistakes
- Burnout and may more…

The health care professional can also experience a **personal impact**, such as:

- Post traumatic stress
- General stress symptoms
- Anger
- Insomnia
- Nervousness
- Effect on family life
- Depression

The second victim individual enter in six step clinical recovery process as under[11] :

1. Chaos and accident response : realizing the error
2. Intrusive reflection : reevaluating the events and self isolation
3. Restoration of personal integrity : managing gossip , questioning trust
4. Enduring the inquisition : realizing the seriousness , worrying about repercussions
5. Seeking emotional comfort : where to turn for help ?
6. Moving on : dropping out (changing jobs or career), surviving (coping) or thriving (ganing insight , learning from events).

Recommended Support Option for second victim individual

Hospital administration should be vigilant in identifying the victims. The administration should provide effective support mechanisms to address the deeply personal , social , spiritual and professional crisis of second victim individual .

1. A respected peer / Senior from same or other specialty should be detailed to discuss the details of what happened as supportive care .
2. An internal discussion with unit head or supervisor about the incident may be very helpful .
3. An employee assistance program should be there that can provide free counseling to employees (by formation of second victim rapid response team with laid out protocol)
4. The opportunity to schedule a time with a psychological counselor at hospital to discuss the event
5. A confidential protocol should be there to get in touch with someone 24 hours a day to discuss how my experience may be affecting me
6. Long leave / some leave may be offered to such victims to cop-up
7. Non Punitive disclosure should be done for such person.
8. Critical Incident and stress management program will be great help.

Seven pillar approach[11] suggested by university of Illinois center Chicago may be helpful in such cases . The seven pillars are

1. Reporting
2. Investigation
3. Communication
4. Apology and remediation
5. System improvement
6. Data tracking and performance evaluation
7. Education and training

Implementation of these pillars may have positive outcome in organization .

Rights of second victims

Charles Denham proposes five human rights for second victims are

1. Treatment that is just
2. Respect
3. Understanding and compassion
4. Supportive care
5. Transparency and opportunity to contribute

This article addresses the gap between the second victim's need for organisational support and the organizational support provided. It also highlights the need for more transparency in the investigation of adverse events. Future research should address how advanced support structures can meet these needs and provide learning opportunities for the organisation.

CONCLUSION

Healthcare organizations should develop a firm policy to manage such cases . This "second victim phenomenon" has a significant impact on the health care professional, colleagues, and subsequent patients. Second victims in health care are struggling personally and professionally in the aftermath of unexpected clinical events, which can contribute to a negative **impact on patient care**. It is critical that support networks are in place to protect both the patient and involved health care providers. Although there is a growing awareness that talking about adverse events is necessary to improve patient safety, it often remains a taboo. It is an important pillar in the search for an optimal patient safety climate. This study provides preliminary support for the SVEST as a reliable and valid instrument to obtain this information. The SVEST can be used by healthcare leaders to guide the implementation of new second victim resources, assess the quality of support resources, and track the performance of second victim programs over time.

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