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Phenomena of Psychological Sufferings Among Nepalese Stroke Survivors and Analysis of Applicability of *Samkhya* Philosophy for Enhancing Their Psychological Wellbeing

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Abstract

Introduction: Psychological suffering is commonly found among stroke survivors, particularly in the acute stage.

Objectives: This study aimed to explore the phenomenon of psychological sufferings of stroke survivors and analyze the applicability of *Samkhya* philosophy for enhancing their psychological wellbeing.

Methods: A qualitative study was conducted at a university hospital of Nepal among 16 stroke patients in the acute stage, selected by purposive sampling. Data collection was done by using semi-structured interviews. Data were analyzed using deductive content analysis. Additionally, the analysis of *Samkhya* philosophy was done by using descriptive literature review from online databases.

Results: Stroke survivors in the acute stage experienced psychological sufferings, which were analyzed as intrinsic, extrinsic, and divine based on *Samkhya* philosophy. The intrinsic sufferings were (a) shock and denial with a sudden loss of normal body function, (b) worry about the possibility of lifelong disability and future life, and (c) fear and concern about the consequences of the disease to self. The extrinsic sufferings consisted of (a) worry when thinking about dependent family members and (b) feelings of making trouble or being a burden to the family members because of their dependency. The divine suffering consisted of feeling of being a burden caused by distress resulting from an inability to perform religious rituals. *Samkhya* philosophy explains the methods of relieving these sufferings by using *yoga* practice.

Conclusion: Psychological sufferings are prevalent among Nepalese stroke survivors, and *Samkhya* philosophy might be one of suitable strategies to relieve these sufferings of the Hindu stroke survivors in the acute stage, and promote their psychological wellbeing. This study recommends integrating *yoga* in caring for stroke patients in the acute stage to promote psychological wellbeing.

Keywords

psychological suffering, *Samkhya* philosophy, stroke in acute stage, *yoga*

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Globally, it is estimated that 80 million people have stroke annually. Among them, 50 million stroke survivors live with some form of permanent disability, and it is the foremost cause of death worldwide (World Stroke Campaign, 2019). It is the third leading cause of death in Nepal, which accounted for 9.46 percent of total deaths, with an age-adjusted death rate of 80.01 per 100,000 of

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the population (World Health Organization, 2017). These scenarios reflect the need for global concern because of its serious and long-term disability, with physical, psychological, social and financial effects on patients, their families, and societies (Clarke & Forster, 2015). At each phase of stroke, survivors need great care. Three overlapping phases of stroke are acute stage, subacute stage, and chronic stage. The acute stage is the initial stage that lasts for about 2 weeks after the onset of stroke (Kiran, 2012), and neurorehabilitation program is effective in this phase to reduce mortality rate and sequelae (Murie-Fernandez et al., 2012).

Psychological problems are common among stroke survivors in different stages of stroke. A systematic review revealed anxiety symptoms among stroke patients in the acute stage (Burton et al., 2012). Apathy, fear of second stroke, loss of self-worth, feelings of isolation and loneliness (Caeiro, 2013; Crowe et al., 2015), interruption of daily routine, transition to unfamiliar surroundings, life with uncertainty, and a journey for adjusting to a new sense of self (Connolly, 2014) were psychological distresses among stroke survivors. Additionally, stroke survivors experienced other kinds of psychological sufferings such as anger, helplessness, emotional imbalance, feelings of insignificance, inertia, and elation (Huang et al., 2014); denial (Stroke Support Station, 2019); feelings of shock (Hartigan et al., 2011); and emotional reactions (Lloyd et al., 2019). These sufferings may increase functional dependency (Huang et al., 2014) and influence the quality of life (Zikic et al., 2014) of stroke survivors. Evidence is scarce on intervention for the management of psychological problems among stroke survivors in the acute stage (Burton et al., 2012), as priority is given to save lives rather than promote wellbeing. Therefore, these findings suggest a need for identifying best-suited interventions for managing psychological distress and promoting psychological wellbeing of stroke survivors in the acute stage.

The present study aimed to explore the phenomena of psychological sufferings of stroke survivors and analyze the applicability of *Samkhya* philosophy for enhancing their psychological wellbeing. *Samkhya* refers to a philosophy that explains evolution of the universe from psychological perspectives (Amin et al., 2015). *Samkhya* philosophy explores three types of sufferings: intrinsic, extrinsic and divine (Sturgess, 2015) and guides to avoid those sufferings (Saraswati & Stevenson, 2017) and promote physical, psycho-emotional and spiritual wellbeing of an individual by applying *yoga* (Yogitha & Ebnezar, 2014). Since *Samkhya yoga* aims to end suffering and to achieve liberation through mind development (Jayaram, 2019a), it is culturally appropriate for Hindus and suitable to guide the current study. The analysis of the applicability of *Samkhya* philosophy for relieving psychological sufferings and enhancing psychological wellbeing was conducted for better understanding of psychological sufferings.

Methods

Study Design and Setting

A descriptive qualitative study was conducted to explore the phenomena of psychological sufferings among Nepalese stroke survivors in the acute stage who were admitted to a neurology ward of a teaching hospital in Nepal. In the neurology ward, patients who survived a stroke received both acute and rehabilitative care until being discharged. For the continuity of medical care after being discharged, patients were asked to do follow-up visit at outpatient department in the hospital. Literature focusing on *Samkhya* philosophy and *yoga* were searched till January 2020 from PubMed, ProQuest, Cumulative Index to Nursing and Allied Health Literature (CINAHL) and Google Scholar databases with Google websites. Fifty-seven relevant articles were selected adopting guidelines of Ferrari (2015) for narrative review.

Participants

Sixteen stroke patients who met the inclusion criteria were selected by purposive sampling technique. The corresponding author visited the neurology ward, identified the bed numbers of the patients from the nursing care plan book, and then visited the bedside with the help of the in-charge nurse of the neurology ward. The inclusion criteria for participants were: clinically confirmed patients admitted in the neurological ward who survived the first ever stroke, both genders, aged 18 years or above, cognitively intact as revealed by mini-mental status examination [MMSE >20], able to communicate, and consenting to participate in the study.

Data Collection

Data were collected from December 2017 to March 2018 by the corresponding author, who had clinical and teaching experiences in nursing and could communicate effectively with the participants using Nepalese language. The medically stable participants were interviewed soon after hospitalization, i.e., within a week after the stroke. The face-to-face interview lasted 45-60 minutes by using semi-structured interview guidelines for exploring the participant's psychological sufferings after the stroke, with a broad question based on *Samkhya* philosophy, namely: What kinds of problems are you facing now while thinking about (a) yourself, (b) your family members and others, and (c) spiritual connectivity or God after a stroke? Audio recordings of the interview of each participant along with observation of

non-verbal cues (e.g., facial expression, mood, and crying) facilitated the verification of data. Field notes were used to record the situation and the participants' characteristics during the interview. Data collection was done until data saturation when no new information was obtained from the participants.

Data Analysis

Data analysis was done simultaneously with and soon after data collection. A deductive content analysis approach (Elo & Kynga, 2008) was used, with the framework of three types of sufferings (intrinsic, extrinsic, and divine) based on *Samkhya* philosophy. Additionally, a matrix for data analysis, data gathering, and data organization was developed using these three types of sufferings. Finally, all themes, subthemes and key findings were discussed, verified and agreed by the research team.

Trustworthiness

The researcher employed Lincoln and Guba's (1985) four criteria to establish the trustworthiness of the study. Credibility was maintained by verifying collected data with participants. Data triangulation was done by gathering data through interviews along with using observation method by the same researcher. Thick descriptions of data were documented to achieve *transferability*. Peer debriefing was done with members of the research team. *Dependability* was maintained through explaining and documenting the study context, objectives of the study, process of participant selection, data collection, and data analysis methods. *Confirmability* was achieved through a detailed description of the research process, maintaining credibility, transferability, and dependability.

Ethics

Ethical approval was taken from ethical review board of Nepal Health Research Council (NHRC Reg.no. 471/2017). Written and verbal informed consent was taken from the participants before collecting data. Anonymity was assured, and participants' privacy and confidentiality were maintained during data collection and publication.

Results

The age of 16 participants ranged from 28–80 years, nearly half of them aged over 60 (n=7). There were 9 males and 7 females, and all of them were married and identified as Hindu in terms of religion. Almost all of them had a low level of education; many could just read and write (n=7) and half of them had basic education (n=8). A majority had ischemic stroke (14). All had hemispheric stroke, with 10 of them having right-sided brain lesions (Table 1). Most of them had slurred speech with an understandable voice. The participants spoke very slowly and took a long time to give responses to the questions during the interview. It was difficult to collect all data at once, thus the data were collected more than one visit. All participants were aware of their stroke after hospitalization, but they were ambivalent about their prognosis and consequences.

Table 1. Demographic and Disease-Related Information of the Participants (n = 16).

Characteristics	Frequency
Age in years	
Below 60	9
Above 60	7
Sex	
Female	9
Male	7
Marital status	
Married	16
Religion	
Hindu	16
Education	
Can just read and write	7
Basic education	8
University education	1
Occupation	
Businessperson	5
Housemaker	5
Service provider/Teacher	4
Farmer	2
Types of stroke	
Ischemic stroke	14
Hemorrhagic stroke	2
Side of stroke	
Right hemispheric	10
Left hemispheric	6

Psychological Sufferings Experienced by Stroke Survivors

In this study, the sufferings of stroke survivors in the acute stage were mostly psychological in nature that were caused and aggravated by their physical problems associated with stroke. The findings are presented as intrinsic, extrinsic and divine types of psychological sufferings, based on *Samkhya* philosophy.

Intrinsic Psychological Sufferings. Intrinsic (*adhyatmika*) sufferings are related to oneself (i.e., intra-organic; physical or mental) (Sturgess, 2015). The intrinsic psychological sufferings found from the current study included shock and denial associated with a sudden loss of normal body function; worry about the possibility of lifelong

disability and future life, and fear and concern on consequences of the disease to self.

Shock and denial associated with a sudden loss of normal body function. This theme represents an extreme level of emotional distress among participants. Initially, they were shocked because of unexpected loss of normal body functions and activities of daily living. The participants experienced a surge of strong emotions and a corresponding psychological reaction in response to an unexpected stressful life event. In this stage, the participants started to ask themselves, What happened and why did it happen to me? This is supported by the following verbatims by participants:

> *I fell suddenly when going to the toilet in the morning. Then, I could not remember what happened. I could not speak, could not get up. At that time, nothing came to my mind after falling, just confusion: What happened? What happened? (PT-8)*

> *Suddenly, I got this disease. I got shocked. I did not think anymore. My mind was empty. Just the same question again and again in my brain: What happened to me, what happened to me? Until now I have the same question in my mind. (PT-12)*

Worry about the possibility of lifelong disability and future life. All the participants experienced an unexpected and sudden onset of multiple physical problems and loss of body functions, requiring emergency hospitalization. In this regard, stroke was taken as a life-threatening condition by the participants in this acute stage. Additionally, the sudden onset of life-threatening condition made them difficult to cope. The loss of body functions further triggered the optimum level of psychological sufferings such as stress, anxiety, worry and confusion among the participants. These descriptions are supported by the following verbatims by participants:

> *Since the disease onset, I was very worried because I couldn't walk; I couldn't speak properly; I couldn't do anything myself. I am thinking that I would remain disabled forever like this, and my life is this much. (PT-13)*

> *I know this is paralysis. My wife is also suffering from this for the last 5 years; her left side still not good. I thought: What will be for me? I puzzled myself: Will it be recovered or not? What will be for me? How can I survive with this condition? (PT-15)*

Fear and concern about the consequences of the disease to self. The sense of fear was experienced by participants from the initial stage of the disease to the hospitalization. More than half of the survivors expressed a fear of death and disability during hospitalization initially. However, stroke participants having mild to moderate symptoms, particularly the young, had expressed fear of permanent disability without a feeling of death. Furthermore, fear of re-stroke and of falling was commonly found among all participants. These fears resulted in a feeling of negative consequences of the disease on their own life, such as whether they will survive or not and whether they will regain their lost body movements and functions or not. The verbatims given by the participants are presented as follows:

> *I would be unable to walk normally forever. How can I work at home? At home, I need to go up and down; I need to walk to the water source. I would be disabled forever. I felt the rest of my life would go like this. (PT-9)*

> *My life was gone. Everything stopped in life. I would be disabled for lifetime. It may remain for the whole life. I was worried about my future life. (PT-15)*

> *I was very agitated and restless at home. I had a lot of stress. I felt I wouldn't live anymore. (PT-5)*

Extrinsic Psychological Sufferings. Extrinsic (*adhibhautika*) suffering is related to relationship with others (i.e., extrinsic or external influence) (Sturgess, 2015). The current study revealed extrinsic psychological sufferings as worry when thinking about dependent family members, and feelings of making trouble or being a burden to the family members because of their dependency.

Worry when thinking about dependent family members. This theme represents participants' irritation towards negative consequences of the disease and disturbances in maintaining family harmony. They were more concerned about the impact of their physical condition on dependent family members. They expressed their lost roles and responsibilities on the job, income, and the family, being concerned about family stability. The participant's expressions:

> *I am worried about getting this disease. I am still young and I have small kids. My children still need my care and support. (PT- 4)*

Feeling of making trouble or being a burden to family members because of their dependency. Most of them do not want to burden their family members. They thought that they might be disabled forever and be dependent on care of family members in the long run. They had stress regarding the effect of their dependency on their family members' daily living activities and jobs. Some participants, particularly the elderly, felt worthless being dependent on family members and making trouble and putting extra load to others. These statements support this theme:

It is hard for my family to take care of me; I trouble (dukkha dine) them by staying at the hospital. (PT- 13)

I had tension, definitely had tension, because I cannot do anything myself. My son has to take care of me. Therefore, he cannot go to work. (PT-16)

Divine Psychological Suffering. The divine (*adhidaivika*) suffering is related to unseen factors (divine or superhuman or evil influence) (Sturgess, 2015). The findings in the current study revealed the divine psychological suffering as distress caused by the inability to perform religious rituals. Religious performance was important and meaningful to the participants as it is directly linked to God.

Distress caused by the inability to perform religious rituals. Thinking about God, performing religious rituals, and remembering a specific God promote a sense of safety and confidence among people toward the welfare of themselves and their family. In Nepal, Hindus annually perform rituals, including fasting, for Goddess *Swasthani* for one month. A participant had observed fasting every year for six years, and she was nearly to complete her fasting when the stroke occurred. So, the participant could not perform the fasting, worshipping and praying. So, she did not feel good and experienced disconnection with God. These feelings were reflected by the participants through the expression of inner feelings and sadness, and vocalizations of distress by crying. The participants cried with every person who visited them in the hospital, including with the nurses while receiving care and with the researcher during the interview. The following expressions by the participants support this theme:

This is my 7th year of taking fasting for worship to Goddess (Swasthani puja). I missed this year due to the disease (the participant was crying continuously). I am not feeling good and am worried about my present and future life along with my family because of this disconnection with worshipping and praying to God. (PT-3)

To sum up, Nepalese stroke survivors had vivid psychological experiences caused by the sudden onset of physical problems and disability. To identify ways of relieving psychological sufferings and promoting psychological wellbeing, the authors analyzed the applicability of *yoga* based on *Samkhya* philosophy.

Samkhya Philosophy and Possibility of Its Application to Promote Psychological Wellbeing

In Nepal, the Hindu religion is dominant, followed by 81.3 percent of the total population (Dahal, 2014). *Samkhya* philosophy originated in the Hindu tradition (Jayaram, 2019b). This philosophy is the dualistic theory of creation or causation (Jayaram, 2019a). The founder of this philosophy was sage Kopila. *Samkhya* is a *Sanskrit* term with a fusion of two words: *sam* meaning "union and completeness", and *khya* meaning "to be known; knowledge". Therefore, *Samkhya* means to have complete knowledge, to obtain the ultimate wisdom, or to have self-realization and union with God (Yogananda, 2017). This philosophy explains that wellbeing and harmony in life will be achieved, sufferings will be minimized, and vulnerability will be lessened when people are aware of the deep soul and have a dominance of *sattva gunas* (Putta & Sedlmeier, 2014). Furthermore, *Samkhya*, as an Eastern philosophy, systematically translates every part of human beings, from the lowest level of mortal existence to the highest level of eternal consciousness and spirit, and explains ways of relieving physical and psycho-spiritual sufferings (Saraswati & Stevenson, 2017). It was mentioned that integration of emotions, elimination of inner tensions, direction to ultimate truth, cultivation of higher qualities, equilibrium of three *gunas* (*sattva*, *rajas*, and *tamas*), and involvement in concentration and adoption of a path for moderation (Krishna Mohan, 2001) are the major focus for promoting psychological wellbeing to the Hindus. According to *Samkhya* philosophy, multiple realities are present in existence (Jayaram, 2019a).

Samkhya philosophy explores human existence by highlighting the basic elements of the universe (the macrocosm or nature) and the microcosm (human being), which communicates about the components of the body, mind, and spirit, from the gross elements of the physical body to the subtler elements of the mind and awareness. It names each element for explaining its function and the relationship to each other, representing the map of the human being effectively (Saraswati & Stevenson, 2017). A healthy balance between the microcosm (human being) and the macrocosm (nature) is the basis of health. The authors developed the nursing ontology, epistemology, and methodology based on *Samkhya* philosophy from literature reviews that are presented in Table 2.

Methods of Enhancing Psychological Wellbeing: Application of Yoga Based on Samkhya Philosophy

The ultimate aim of *Samkhya* philosophy through *yoga* is to promote balance of *sattva, rajas* and *tamas gunas* (Burgin, 2019) and strengthen *sattva guna* (Jayaram, 2019b) that can be achieved by releasing the elusive relationship between *purusha* (i.e., spirit) and *prakriti* (i.e., matter [body and mind]) by limiting the sufferings caused by those connections (Yinyoga, 2020). *Sattva guna* promotes psychological brightness, emotional and subjective well-being, peace, a sense of gratitude, kindness, love, joyfulness, boldness, and altruism (Burgin,

Table 2. Framework of Samkhya Philosophy as a Content, Method, and Way of Life in Nursing to Enhance Psychological Wellbeing of Stroke Survivors: Integration of Yoga.

***Samkhya* Philosophy as Content in Nursing**
Nursing Ontology
According to the ontology of *Samkhya* philosophy, human beings have 25 *tattvas*. *Purusha* is eternal truth or consciousness (Saraswati & Stevension, 2017). *Prakriti* is nature which consists of *mahat; ahamkara; manas*; five *jnanendriyas*; five *karmendriyas*; five *tanmatras*; and five *mahabhutas* with three *gunas* [*sattva, rajas* and *tamas*] (Saraswati & Stevension, 2017). *Purusha* and *prakriti* are two facets of *Samkhya*. *Prakriti* is the power of manifestation in all objects and responsible for diversity (Jayaram, 2019b). These two facets are actual and have an autonomous presence and exist through infinity (Jayaram, 2019b). The goal of nursing among stroke survivors is to promote health, prevent disease, provide care to the person in illness, and rehabilitate the person for social integration and returning to their new balance in life. Therefore, nursing ontology on *Samkhya* philosophy focusing on the person, health, nursing, and environment helps to understand and manage patients with stroke.
Person or Human Being
Person refers to an individual human being having mind, body, and soul. These realities are 25 *tattvas* which are interrelated and inseparable along with three types of psychological sufferings (extrinsic, intrinsic and supernatural). The intrinsic psychological suffering is a disorder of mind and body which is aroused through people's own restricted self-perception and self-esteem. This includes people's attitudes, beliefs, habits, fears, faith principles, and intrinsic feelings/emotions (Davis & Omar, 2015). The extrinsic psychological pain is caused by social pressure or social aspects of problems resulting from human social interactions that have a greater influence on mental health (Davis & Omar, 2015). The supernatural causes are unpredictable events that cause intense levels of despair and feelings of burdens to families and individuals (Davis & Omar, 2015).
Health
It is a state of balance of body and mind, with freedom from psychological sufferings. *Yoga* is incorporated to bring a cessation of the functional modifications of the mind, which is promoted through a network interaction of body and mind. As a result, *sattva guna* (a pure state of mind) is promoted, which helps to control emotions, thoughts, and actions along with positive feelings towards ourselves. It makes people feel healthy, happy, and full of knowledge. *Yoga* helps to comprehend and experience ultimate truth, i.e., infinite peace, bliss, and liberty.
Nursing
Nursing is the care provided to patients experiencing sufferings, through *yoga* and caring practice, i.e., supporting, motivating, and guiding. *Yoga* practice consists of *asana*, *pranayama*, and meditation that promote the psychological wellbeing by strengthening *sattva gunas* and decreasing the effects of *rajas* and *tamas gunas*.
Environment
Environment refers to the internal environment that is related to the patient self (i.e., patient's self-confidence, attitude, trust and belief towards own capability) and the external environment (i.e., physical and social, which refers to seeking assistance from others for relieving sufferings). Nurses with interdisciplinary teams must play an important role to create a familiar, conducive, and interactive learning environment for *yoga* practice to enhance the psychological wellbeing of stroke survivors.
Nursing Epistemology
The *Samkhya* school accepts three *pramanas* (valid means of knowledge) in its system of epistemology. These *pramanas* are *pratyaksha* (direct sense perception), *anumana* (logical inference), and *shabda* (verbal or word testimony).
It focuses on the processes of reading (understanding terminology and philosophy), contemplation and meditation (comprehension and sensation of the philosophy), and *yoga* practice (application of philosophy so that our understanding results in faithful experience) (Bhavanani, 2013). *Shabda* (verbal testimony), or knowledge from a trustworthy person, can be used if it is not possible to perceive and inference. Based on *Samkhya* philosophy, nurses should find out the psychological sufferings by using their perception, inference and verbal testimony before applying *yoga* practice to stroke survivors.
***Samkhya* Philosophy as a Method**
It emphasizes relieving of psychological sufferings through *yoga* practice, which consists of *asana, pranayama*, and meditation.
***Samkhya* Philosophy as a Way of Life**
Nurses in daily work life have to deal with patients with stroke. They have a different role and responsibility as a care provider, facilitator, educator, motivator, supporter, etc. Therefore, nurses have to analyze patients' conditions and should be prepared for the application of *yoga* for enhancing their psychological wellbeing.

2019). Government of India [GoI], Ministry of Ayush [MoA] (2017) also reported that the most common cause of suffering is a lack of understanding about the ability of oneself. *Yoga* further helps to purify the mind and body and eliminate cause of pains and sufferings, promotes self-awareness (Jayaram, 2019a; Sturgess, 2015), and obtain *mukti* or liberation (i.e., release or freedom of soul) (Saraswati & Stevenson, 2017). It brings equilibrium and maintains a healthy and balanced body-mind and spirit (Yogitha & Ebnezar, 2014). *Yoga* based on *Samkhya* philosophy enhances peace and harmony in life by making people realize their potentiality,

strength, and limitations. Furthermore, it helps to develop respect to self and others, facilitates for adjustment, and creates happiness through positive attitude (GoI, MoA, 2017).

Yoga based on *Samkhya* philosophy is portrayed symbolically as a tree containing eight facets: *yama* (universal ethics), *niyama* (individual ethics), *asana* (physical postures), *pranayama* (breath control), *pratyahara* (control of senses), *dharana* (concentration), *dhyana* (meditation), and *samadhi* (mindfulness) (Yogitha & Ebnezar, 2014). However, in clinical practice, simplest and efficient programs are required for patients who have several health problems and limitations. Research evidence shows that only a few selective *yoga* methods can effectively promote health, e.g., *yogasana, pranayama*, and meditation (Saraswati & Stevenson, 2017). Therefore, the current study analyzed these three basic techniques of *asana, pranayama,* and meditation with *Om* chanting to promote psychological wellbeing of Hindu patients in acute phase of stroke.

Yogasana. *Yogasana* are the fundamental physical practices that strengthen and stretch muscles, circulate fresh blood to internal organs, improve muscle tone for stabilizing body and mind, and further advance mind development (Bhavanani & Ramanathan, 2018). It also helps to open the channel of energy in the body and releases tension in the physical, mental and emotional aspects of the body by purifying the mind and body (Sengupta, 2012). It also brings physiological response, revitalizes the nervous system by increasing parasympathetic activation, elevates levels of gamma-aminobutyric acid (GABA), regulates the activity of hypothalamic-pituitary-adrenal [HPA] axis, and promotes a psycho-emotional cleansing (Bhavanani & Ramanathan, 2018) resulting in decreasing cortisol levels (GoN, MoA, 2017).

Pranayama. It is the breathing technique where consciousness is diverted to the spread of breath, and the spread of breath is attached to the *pranic* energy which promotes steadiness of mind and enhances the capability of concentration and comprehensive judgment (Patil, 2018; Saraswati & Stevenson, 2017). It is the most powerful means to eliminate *tamas* from the body and the nervous system. Further, it helps to enhance the function of autonomic nervous system, improve blood oxygenation, promote immunity and mental functioning, decrease stress, and lower cortisol levels (Andrew, 2015; Bullock, 2016; Novotny & Kravitz, 2007). Moreover, it promotes joy, love, and creativity by integrating and harmonizing the body and mind (Sengupta, 2012) and influences thoughts and feelings and temporarily alters rates of cellular metabolism (Andrew, 2015).

Meditation With Om Chanting. Meditation is emphasized to work against *ahamkara* (ego). It relaxes the body and mind by stimulating the parasympathetic nervous system (GoI, MoA, 2017) and by promoting their spiritual reality (Saraswati & Stevenson, 2017). It also helps to release emotions and reduce conflicts and frustration; facilitates objective understanding of the reality; conserves, recovers and retrieves psychological and physiological energy, and enhances psychosocial integration; and facilitates mind development (Saraswati & Stevenson, 2017). On the other hand, meditation increases cerebral blood flow; increases cardiac output; activates specific neural patterns; and decreases limbic arousal in the brain. Furthermore, it control and promotes autonomic stability to stresses and enhances the ability to cope (Shin, 2000).

Regarding *Om* chanting, *Om* is a divine sound and spiritual *mantra* that has a religious meaning in Hindu culture (Gurjar & Ladhake, 2016). *Om* chanting is a powerful means of purifying, strengthening, and awakening the elements of human being (Saraswati & Stevenson, 2017). It stabilizes the brain, keeps the mind steady, refreshes all the seven energy centers (i.e., root, sacral, throat, heart, third eye, crown, and the higher octave of the root) (Gurjar & Ladhake, 2016), and reduces stress and anxiety (Gurjar & Ladhake, 2016; Harne et al., 2019).

In conclusion, *asana, pranayama*, and meditation absorb unpleasant frustration with calmness and elegance; bring out repressed wishes, thoughts, and emotions to the surface; and promote relaxation. Ultimately, they promote the *sattva guna* of a person. The summary of *Samkhya* philosophy based psychological sufferings, *Samkhya*-*yoga* based intervention, and health outcomes are illustrated in Table 2.

Discussion

The study was conducted among 16 Hindu stroke survivors for exploring the psychological sufferings experienced by them after stroke. Furthermore, *Samkhya* philosophy and the possibility of its application to promote psychological wellbeing, and methods of enhancing psychological wellbeing by applying *yoga* based on *Samkhya* philosophy relieving these sufferings were discussed.

Psychological Sufferings Experienced by Stroke Survivors

The current study found that the Hindu stroke survivors experienced intrinsic psychological sufferings (i.e., shock and denial associated with a sudden loss of normal body function, worry about the possibility of lifelong disability and future life, and fear and concern about the

consequences of the disease to self). None of the previous studies have analyzed the psychological suffering using *Samkhya* philosophy. However, the psychological problems revealed in previous studies (Connolly, 2014; Crowe et al., 2015; Lloyd et al., 2019; Stroke Support Station, 2019) were congruent with the intrinsic psychological suffering experienced by the stroke survivors in the current study. Fear of reoccurrence of stroke, sense of external and internal loneliness and isolation, distress caused by sudden unexpected events, fear of the unknown (Crowe et al., 2015), sad, anxious and depressed feeling (Pedersen et al., 2019) were some psychological sufferings, also explored by stroke survivors in previous studies. Additionally, stroke survivors experienced hopelessness, helplessness, thought of death, feeling of anger and guilt, hesitation to reveal the disease to others, and difficulty in asking for help from others (Sharma et al., 2019).

Similarly, worry when thinking about being dependent on family members, and feeling of making trouble or being a burden to the family members were the extrinsic psychological sufferings experienced by the participants of this study. Moreover, all these situations played a vital role in losing self-confidence, inner strength and hope for recovery and future life after having a stroke, and ultimately, losing of emotional control. These findings are congruent with the cultural aspects of Nepal and with the problems revealed from the previous studies. In Nepal, the Hindu religion is dominant, and its culture is collectivistic in nature that enhances people's wellbeing by preventing negative psychological consequences in the face of adversity through support, resources, and safety, and family members are interdependent with each other (Kouwenhoven et al., 2011). Therefore, the sickness of a family member, especially a breadwinner, can impact the whole family. Evidence on the philosophical analysis of suffering among stroke survivors is scarce. However, stroke survivors in the previous studies experienced threats to their obligation to job (Kouwenhoven et al., 2011) and to family and children (Crowe et al., 2015; Kouwenhoven et al., 2011), and loss of employment and financial difficulty (Lloyd et al., 2019). The current study also shows that stroke survivors are concerned with their family members and their job. The current study also demonstrates the divine suffering, including the distress caused by an inability to perform religious rituals among participants who survived the stroke. Religious beliefs and rituals enhance social cohesion and social support for health promotion, recovery of suffering, feeling of a sense of divine connection, and release of emotions by expressing problems and suffering. Ultimately, these beliefs and rituals might influence psychological health and prevent mental health problems (Kouwenhoven et al., 2011). However, intentional and unintentional disruption of these rituals might induce psychological problems such as anxiety (Agrawal, 1989). Additionally, followers of the Hindu religion believe that fasting is the means of staying close and achieving closeness to God (Asian-American and Pacific-Island Nurses, Magazine, Minority and Community Health, Nurse Health, 2013). Therefore, disruption of religious ritual (e.g., fasting), and feelings of disconnection with God aggravated the divine psychological suffering among stroke survivors in the current study.

The study yields the physical problem of stroke survivors in the acute stage that brings psychological suffering and affects their way of thinking, feeling, doing, and vice versa. There is a substantial overlap of current findings with the findings of the previous studies. The psychophysical response of the body, traumatic life experiences, and utilization of coping mechanism might be related to these sufferings. However, the availability of the family support and financial status, roles, and responsibility before the stroke, and health care services might be associated with psychological sufferings. If these sufferings are not managed in time, they will affect future recovery and increase the dependency of patients. Consequently, it might impact the lives of family members and the economy of the family, society, and nation. Previous studies also highlighted the need for interventional studies to relieve the psychological sufferings of stroke survivors. Therefore, it is essential to search appropriate health-promoting strategies for managing their suffering and promoting wellbeing.

Samkhya Philosophy and Possibility of Its Application to Promote Psychological Wellbeing Among Stroke Survivors

On the other hand, *Samkhya* philosophy views that mind, body, and spirit are interrelated. The change of either one of them will affect the other two and the whole human being. This philosophy as a whole emphasizes the mind as the focal point for training to bring a healthy body, mind and spiritual interaction through *yoga* practice. Therefore, it is necessary to guide human beings to make them able to distinguish between matter (*prakriti*) and spirit (*purusha*) and be free from the despairs of life. Nurses are encouraged to incorporate *Samkhya-yoga* into their caring practice for more successful enhancement the stroke survivors and their family to participate in the care (Figure 1).

Methods of Enhancing Psychological Wellbeing Among Stroke Survivors: Application of Yoga Based on Samkhya Philosophy

Stroke causes mind-body disconnection because of cerebral damage, traumatic experience, and disability caused

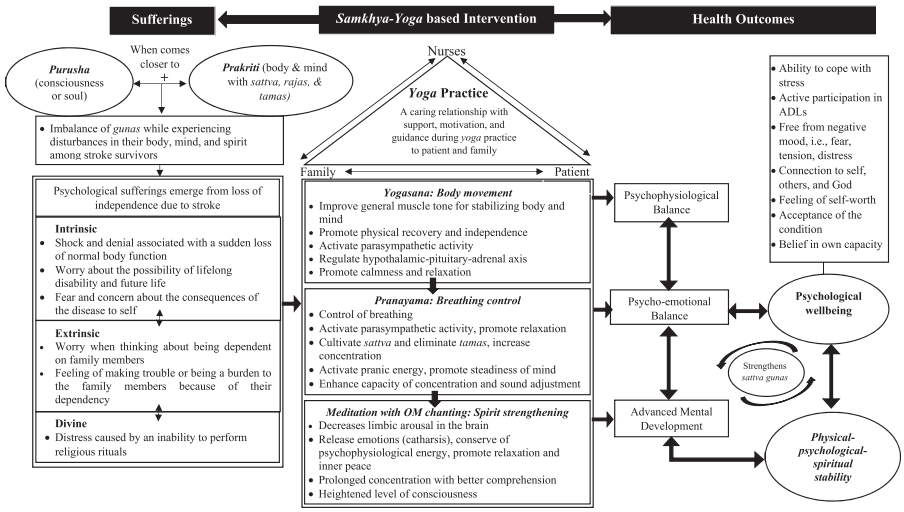

Figure 1. Psychological Sufferings and *Samkhya-Yoga* Based Intervention for Promoting Psychological Wellbeing of Stroke Survivors.

by stroke. Therefore, *yoga-based* interventions targeted at many functions, structures, and systems of the body can connect the mind and body of stroke survivors and promote holistic health (Schmid & Puymbroeck, 2019). In the acute stage of stroke, information regarding strokes and measures for health promotion and complication prevention should be simple, individualized, and targeted to the unique needs, health conditions and dominant problems of stroke survivors, depending on their readiness to learn and practice. Therefore, modified *yogasana, pranayama*, meditation, and *mantras* might be one of the suitable therapeutic approaches for balancing the stress regulation systems in the brain and body of stroke survivors (Schmid & Puymbroeck, 2019). All types of *asana* cannot be applied for patients in an acute stage of recovery after stroke because of high blood pressure and weakness of muscles. Therefore, the selection of suitable *asana* should be based on the clinical judgment of care providers. *Asana* can be adopted in seated (on a chair), standing, and wall versions for patients survived of stroke (Schmid & Puymbroeck, 2019).

Explanations of the use of *yoga* and its possible mechanisms are different in science and *Samkhya* philosophy. In fact there is no conflict between the ideation based on sciences and *Samkhya* philosophy. Both concepts help better understanding the use of *yoga* to promote similar expected health outcomes. Some studies reveal the effectiveness of *yoga* for promoting the wellbeing of stroke survivors. The evidence-based review highlighted that *yoga* is an effective intervention for promoting the wellbeing of patients with numerous neurological disorders (Mooventhan & Nivethitha, 2017). Likewise, research evidence has also demonstrated that the expected health outcomes, e.g., relaxation, comfort, psychological and holistic health, are enhanced through the activity of hypothalamic-pituitary-adrenal [HPA] axis, resulting in the regulation of the neuroendocrine and the cardiovascular response to stress causing in reducing stress and improving cardiovascular indices. Likewise, other systematic reviews also showed that *yoga* was effective in decreasing anxiety and depression (Schmid & Puymbroeck, 2019) and physical suffering and stress (Lazaridou et al., 2013) among stroke survivors. Importantly, Lawrence et al. (2017) highlighted the need for robust interventional study for establishing the effectiveness of *yoga* for stroke survivors as a rehabilitation program. However, none of the studies highlighted the philosophical based *yoga* practice. Analyses of *Samkhya* philosophy highlight that *yoga* practice is a cost-effective, efficient, and independent method for relieving the psychological suffering. *Yoga* ultimately helps to strengthen the *sattva guna* and maintain a balance of body, mind, and soul.

In the Nepalese context, there is no provision of transitional care or home- or community-based care for stroke survivors and people with other health problems. However, physicians recommend follow-up visits and prescribed certain medicines and physiotherapy for continuity of medical care. A stroke survivor often cannot follow up in time. This is due to lack of social and family support, financial constraints, transportation difficulties, and geographical hindrances. If health care providers initiate *yoga* intervention for relieving psychological and physical sufferings during hospitalization and at the time of discharge, patients may be able to continue this intervention at home, and their sufferings will be relieved. In this way, the practice of *yoga* might help to offset social and economic strife.

The practice of *Samkhya* philosophy is made through *yoga*, which became popularly used to promote health in global community (Rishikesh Yog Mandir, 2019; United

Nations, 2020). Even though *yoga* is strongly connected with Hinduism, it is not a religious conviction itself. Because of the practical steps of *yoga*, people of all religions and secular people can also benefit from it (Hinduwebsites.com, n.d.). It is evident that *yoga* has been successfully used in clinical and nursing practice internationally for health purposes, e.g., blood pressure reduction, and mental health promotion (Bukar, Eberhardt, & Davidson, 2019; Packyanathan, & Preetha, 2020). To conclude, *yoga* is based on *Samkhya* philosophy and is concerned with the realization of self and perception of ultimate truth directly. Consequently, the practice of *yoga* helps to offset social and economic strife. Therefore, relieving psychological suffering using *yoga* based on *Samkhya* philosophy might be suitable for Hindu stroke survivors and other stroke survivors belonging to other religions and cultures internationally.

This study attempts to highlight the phenomenon of psychological suffering applying *Samkhya* philosophy by exploring its ontology, epistemology, ways of life, and methods of application. Based on the philosophical approach, this study demonstrates the scarcity of scientific evidence and its application among Hindu stroke survivors in the acute stage. Therefore, this study will be beneficial for those carrying out future research in this direction. However, the study was conducted in a university hospital among Hindu stroke survivors applying a qualitative approach. Additionally, the researchers experienced difficulty in getting responses from the patients during acute stage. Therefore, involvement of the family as associated participants was helpful in getting an in-depth understanding of the study phenomenon. On the other hand, the applicability of *Samkhya* philosophy was analyzed based on the literature review. Therefore, this study might not have been able to draw the concrete and valid conclusion for the applicability of *Samkhya* philosophy.

Conclusion

Nepalese stroke survivors experienced intrinsic, extrinsic, and divine sufferings based on *Samkhya* philosophy in the acute stage. Y*oga* practice guided by *Samkhya* philosophy might be suitable to Hindus Nepalese stroke survivors for promoting their psychological well-being in the acute stage. Nurses are encouraged to incorporate *yoga* in their daily practice by employing compassionate actions, encouraging the stroke survivors and their family members to participate in the care, and creating conducive learning and practicing environment for *yoga* practice to reduce psychological sufferings form stroke. Additionally, *Samkhya* philosophy-based *yoga* can be utilized by the nurses in other countries with different cultures in their day-to-day clinical practice in the acute care setting for providing holistic care to stroke survivors. However, secondary analysis of *Samkhya* philosophy-based *yoga* practice could not guarantee the effectiveness of *yoga* practice for relieving the psychological sufferings of stroke survivors in the acute stage. Therefore, it is necessary to focus on future studies, mainly action research or randomized control trials.

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Authors' Contribution

U. H.: Conceptualization, supervision, data analysis, data validation, manuscript preparing reviewing, editing, and finalization. K. P. A. and R. T.: Data collection, data analysis, data validation, manuscript preparation, revision, and finalization.

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