System Theory and Ecological Approach in Social Work Practice: An Actual Case Illustration

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Abstract

The system theory has a significant impact on social workers since the 1970s. It advocates that the whole system, or a family, is made of different individuals. In this regard, the interest of the 'family' or the group is greater than the interest of individual members. The system function as each part interacts (communicates) with each other. This article discusses the application of an intervention-based system theory in the practice of social work. Furthermore, it presents a case illustration of an actual case to understand the application of system theory in the practice of social work. The case illustration details the clients' issues and how the fundamental basic systems in the system theory, specifically, the client system, change agent system, target system and action system could be applied in social work practice. The actual case illustration study has facilitated a system theory analysis of the people, the environments, and changes that are related to the clients' wellbeing to find the most effective intervention targets and strategies. In this regard, system theories bring the environment back into the concept of people in the environment. It can be concluded that system theory is an important tool to guide professionals across all levels of social work practice.

Keywords: System theory, Social worker, Case Illustration, Intervention, Social work practice

System Theory

According to Turner (2017), while the system theory has a significant impact on social workers, it also created some controversies. In this regard, scholars have argued the importance of distinguishing a system theory for social work, specifically the general system theory. Studies on system theory, have also tried to identify a separate social system according to Persons' sociological analysis of system in society.

The systems approach makes two general substantive assumptions about human behaviour. It stipulates that, at any one point in time, a system's condition is the function of the interaction between the system and the environment it operates in. Furthermore, it is argued that conflict and change in the system are inevitable.

Frankel, Kropf, and Greene (2017) argued that the changes and developments occur when individuals are influenced by their environment, and vice versa. In the meantime, as a social being, each person will be part of a family, or a 'system' and the interest of the 'whole' is higher prioritised over the interest of individual family members. It indicates that the family is a system bounded by the interaction with its

environment. Furthermore, individual members are both unique and part of the family at the same time and the family system comes to life when there is an interaction between each member. Hence, by looking at the system as a whole, one could analyse the relationship and interactions between each member first. In the meantime, it is stipulated that in the systems theory, those with higher position in the family can control those at the lower position.

According to Frankel et al. (2017), a family system could be divided into three subsystems, which are parents, parent-child, and siblings. In a conventional family, the power dynamics is often hierarchical. Here, both parents have equal power, while their children are able to have their say in a democratic way. This shows that the roles of individual family members are determined by their statuses in the family (Thies & Sari, 2018). Hence, both parents and children have a clear overview over their status and role in the family. In a social hierarchy, status denotes one's position and rank in the system. Meanwhile, role often denotes a more dynamic view of one's position and family members in different positions should do.

The system ideas in social work started with the general system theory, as introduced by Bertalanffy (Lewis, 2016). The biological theory advocates that all organisms are part of systems which consists of different sub-systems. Subsequently, these systems will become part of super systems. In this light, for instance, the human body (the whole) is made up of different systems with different organs comprising of smaller cells that come from atoms and smaller particles. Hepworth, Rooney, Rooney, and Strom-Gottfried (2016) are some of the researchers that applied system theory to social work. Their work have made ways to the application of the theory to practice, such as discussed in Hutchison (2018). This theory has been applied to social systems, such as groups, families and societies, as well as biological system.

Payne and Reith-hall (2019) described two forms of system; a closed system, where no interchanges occur across the boundary, such as in a vacuum flask, and an open system where energy can permeate through the boundary He used the analogy of a tea-bag sipping in hot tea to describe the open system. Here, even though the flavour inducing tealeaves are confined by the tea bag (boundaries), the flavour will still be infused into the water (outside of the boundaries). In this regard, the mental and physical energy exchanges more frequently compared to outside the boundaries.

General System Theory

Von Bertalanffy rejected the "scientific method" notion where a system can be dissected to individual components or combined linearly to describe the system's totality. He also rejected the notion that each component can be analysed independently. Instead, he advocated that a system is characterised by the linkage and non-linear relationship between different components in a system (Lewis, 2016).

Missimer, Robèrt, and Broman (2017) described that knowing one part of a system will provide knowledge about the other parts. In this light, knowledge that can be obtained from information obtained from one part of the systems. It was further argued that systems can be controlled or uncontrolled where changes are executed based on the information collected from the system. The information acts as the system's detector, selector, and effectors. The detector facilitates the spread of information between systems while the selector is confined by the system's rules in making decisions. Meanwhile, the effector function concerns how the transactions between systems are conducted while communication occurs as information is exchanged across systems. On the other hand, transactions occur when there is an exchange of energy or item where different systems interact through both communication and transaction (Fulk & Yuan, 2017).

In general, systems can be analysed using two approaches- the cross-sectional approach when there is an interaction between two systems and developmental approach, which focuses on the gradual changes in a system in a specific time duration (Kunnen, De Ruiter, Jeronimus, & Van der Gaag, 2019). Moreover, the subsystems in a system can be analysed through three ways which acknowledge the existence of subsystems operating within a larger system. These subsystems are holistic approach, where a system is examined as a complete functioning unit, second, the reductionist approach, which

examines the subsystems deductive as part of a larger system and third, the functionalist approach which analyses a system inductively to examine the role it plays in the larger system.

Input refers to the external information or matter-energy from the environment, which enters the system, while output refers to the internal information or matter-energy transported outside of the system to the environment. Both input and output travel across the system boundaries. Similar to several other works discussed here, Missimer et al. (2017) explained that a systems can be categorised into closed systems and open system; a closed system is where interactions occur only internally between the system components, but not with external elements in the environment. Meanwhile, in an open system, the system receives external input from the environment while the output from the system is channelled outside of the system. An open system is defined by the dynamic interaction between the different components while other models, for example, a cybernetic model is defined by the feedback cycle. Open systems tend to have negative entropy and higher levels of organisation, on the other hand, closed systems can maintain or decrease organization (Kunnen, De Ruiter, Jeronimus, & Van der Gaag, 2019). Greene (2017) posited that life itself in open system where feedback is a mechanism used to explain different physiological and biological processes. Another notable study is by Erwin Schrodinger who is known as the pioneer in the field of quantum physics, mentioned that life follows periodic crystal.

Ecological Perspective and Social Work Practice

Social ecology focuses on how people function in an environment and how people influences their environment, and vice versa. Guerrero et al. (2018) mentioned that Social Ecology Model, or the Social Ecological Perspective, can be used to examine the effects and the links between social elements in an environment. It presents a theoretical framework to analyse conflict communication in multiple types of research and in different contexts Adams, Dominelli, and Payne (2017) expanded this model to design a more comprehensive ecological perspective framework that has gained popularity among scholars in the field of social work.

The ecological or ecosystem perspective was introduce to increase the system theory in social work was introduced (Schölmerich & Kawachi, 2016). According to the model, the environment is static and has a permanent role in one's life. Consequently, Moore (2018) introduced seven ecological pathways to look at the interactions between people and their environment. Since its inception, Moore adopted the "life Course" into the human development, model where ecological framework is used to understand unique individual experience in the historical, society and cultural context. The model also presents an innovative practical scheme to assess challenges in dealing traumatic events, life transitions, environmental pressures and the interpersonal factors.

Cumming and Allen (2017) argued that ecological theories are different from behavioural and psychological theories as they focus on the inter-relational transactions between systems. These theories advocate that the elements within an ecosystem play similar roles to maintain the balance in a system. In the field of social work, ecological approach considers a individuals, families, cultures, communities, and policies surrounding the client to determine the strengths and weaknesses in the interactions between these systems to improve it. Holistic thinking can help comprehend how one's behaviour can be altered and sustained through the interactions between different systems.

Another study by Schölmerich and Kawachi (2016) proposed the use of four ecological component levels to understand how the hierarchical environment systems where one functions affect individual or family processes. The most basic system is known as a *microsystem. A microsystem refers to one's closest environment, which usually* affects his/her traits, and the relationship between family members. Another component is the *mesosystem. The mesosystem, which acts as a general system reflecting the interactional,* processes between different microsystems, such as how spousal relationship impact parent-child interactions. This is followed by the exosystem which *denotes* a more generalised level which indirectly affects family interactions on the micro and meso levels, this includes aspects like parent's employment which could affect the connections between family members. Finally, the mi*crosystem is t*he most generalised system which influences individuals and family functioning, such as political, cultural, economical and social functions.

Social System

Parsons, Shils, and Smelser (2017) mentioned that we cannot consider human needs as part of the larger systems where humans function, including family, social group, community, and social institutions including communities in school, place of worship, and social agency. Instead, these systems are part of a person's environment and each individual often belongs to several larger systems. In this regard, scholars have argued that the different systems often have conflicting environmental demand, which undoubtedly affects the social system. Consequently, the social system approach considers parts, wholes, and environment surrounding the target individuals, as well as the relationships between them. Social systems theory helps understand the different systems in one's life and identify his/her needs (Becvar & Becvar, 2017). Systems theory and family therapy: A primer. Rowman & Littlefield. Thus, this theory help social workers to conceptualise the link and relationships between the target individuals (clients) with their family members as well as members of other social groups and agencies they are involved in. The theory acknowledges the similarities and differences of various system classifications and help social workers to deal with personal and public issues in both the nurturing and sustaining systems.

Parsons et al. (2017) further explained that a system's needs could be fulfilled through facilitating internal communication between different parts or external communication across the system boundaries. This includes making decisions using recourses from inside and outside of the system to execute the necessary tasks to fulfil its function. This could be done through task distribution or specialisation. To fulfil and sustain its functions, each system will gradually develop its own coping processes and unique way of functioning. In this process, the system will establish its own goals and norms for functioning. This will also create the relationships between each element.

An Actual Case Illustration

By adopting a system perspective, a social worker needs to look beyond a client's problem to measure the complexity of the problem, as well as the links between the problems and other related problems. Studies have shown that the most effective intervention targets and strategies for a case can be found by using the system analysis. The model advocates that there are four basic systems in social work practice (Popple, 2018). The first system is the change agent, which are made of professionals who specialised in creating planned change. This is followed by the client system, which refers to the individual subscribing the services of the change agent and expecting a benefit from these services based on the agreed contract with the change agent. Next is the target system or the people, agencies, and organisational practices that the change agent (social worker) has targeted to create measurable changes upon. The next system is the action system, which refers to those working with social worker to accomplish changes to tasks and achieve the goals for changes.

For this study, the illustration of the actual case is presented to help understand how system theory could be adopted in social work practices.

A Case Illustration

Muthu (not his real name) is a 9 year-old boy from Taiping, Perak. Muthu is a standard three pupil studying in SRK ST George, Taiping. Muthu is not interested in learning in schools and he was not attentive and disruptive in school. Muthu showed low academic achievement and refused to do tasks given by his teachers. Muthu is labelled as a problematic student in school as he is frequently involved in fights and bullying. It is suspected that he acts this way due to the bad influence of some of his friends who are school dropouts. As a result, the teachers and other students in his school often isolate Muthu as he is deemed as a trouble maker.

Muthu is raised by a single mother after his parents got divorced he was only 1 year old. Muthu is the only child. He is staying with his mother, Maliga, and his grandmother, Kanaga, in a rented house in Winston Estate, Taiping. Muthu has a very close relationship with his

grandmother as she is the one who takes care of him since he was a baby. Meanwhile, Maliga is unemployed and the family relies on the mere RM200.00 monthly financial assistance from the Department of Social Welfare. The money is used to cover their daily expenses such as house rent and food, and they often find the assistance is insufficient to cover their expenses. Due to their financial situation, the community in the estate looks down on Muthu's family and some of their neighbours do not allow their children to play with Muthu as he is considered as a bad influence to the children.

As he has no friends in school and in his neighbourhood, Muthu made friends with delinquents in his town. His friends persuaded him to play truant and join them in criminal activities like selling illegal VCDs in town to get extra money. Muthu was forced to join his friends as they threatened to isolate him if he does not join them. Eventually, he complied, as he is afraid to lose his friends. Recently, the police arrested Muthu for selling illegal VCDs and the magistrate instructed him to be put under the care and supervision by officers of the welfare department.

The system theory was applied to examine Muthu's case. In this case, the assigned social worker assigned did not just work with Muthu, but also with his family members, teachers, schoolmates as well as people in his neighbourhood. This approach was chosen based on the presumption that a social problem is usually caused by different environmental systems, rather than a specific personal issue. According to Cumming and Allen (2017) social work practice has extended the view that as people are affected by the environment they are in, one will go through a never-ending cycle of creating, restructuring and adapting himself to an environment. Hence, social work must takes into account the inexplicable relationship between "change agent system", "client system", "target system", and "action system" to achieve their goal.

Change Agent System

The term "change agent system" refers to professionals specifically assigned to facilitate planned changes. The change agent in this case is the social worker who works in the change system (welfare department) to help client meet their goal. In this regard, Ramsay and Boddy (2017) described that the social worker has an obligation to change agent system. In this study, the case focuses on Muthu, a 9 year old who was arrested for selling illegal VCDs. Here, a social worker (change agent) and few agencies (change system) had assigned to conduct interventions to help Muthu. As he is still a minor, the Magistrates put Muthu under the care of the welfare department, which has a social control in society and Muthu was put under the supervision of a social worker. The social worker is obligated to perform the tasks assigned by the welfare department to help Muthu change his behaviour and becomes a better person. Thus, the social worker enlisted many techniques and methods to help Muthu change his behaviour. The first step was to identify those involved to address problems faced by Muthu.

Assessment of Data

The social worker takes on a massive role in determining the factors leading to Muthu's bad behaviours. The social worker needs to communicate with him to obtain more information about him and what cause him to act that way. The social worker conducted a private interview with Muthu to know more about his family. The inputs from the interview provided the social worker with a brief outlook of Muthu's live as the only son of a single mother who is living in poverty. His grandmother, who lives with him and his mother, is his main caregiver. Muthu told the social worker that he is more attached to his grandmother compared to his mother. The family is facing financial hardship as Muthu's mother is unemployed and the family's income comes from a RM200 financial assistance provided by the Department of Social Welfare. Based on this information, the social worker persuaded the welfare department to increase the monthly assistance or to provide the family with basic food supplies such as rice and sugar, as well as clothing.

The social worker also found out that Muthu does not perform well in school and is frequently involved in disciplinary issues. Muthu is often punished for his bad behaviour, such as being asked to sit by himself at the back of the class. He is also labelled as a bad student and his classmates started to stay away from him. This causes Muthu to play truant and mix with delinquents in town and they persuaded him to commit crimes.

Client System

"Client system" refers to those who sanction or ask for services from the change agent. The client refers to people who are the service beneficiaries, and working together the change agent (Lowe, 2016). In this regard, a client system refers to people that receive benefits from the service provided by the change agent. Thus, client systems are not limited to individuals, but also, the community, social group, families and organisations (Lowe, 2016). It is crucial for a social worker and his client system to agree on the goal of the intervention. Thus, social workers should identify the most suitable problem-solving approaches to achieve the intervention goals (O'Hare, 2020).

This study analyses the case of a 9 year old boy, Muthu, who was caught by the police for selling illegal VCDs. As Muthu is under 18 years old, the magistrate assigned Muthu to the welfare department. In such cases, the welfare department is responsible as a caretaker for these offenders. As part of his intervention programme, Muthu was put into the care of a social worker. Muthu's intervention mostly involved his family members and the people closest to him, specifically his mother and grandmother. It is crucial to understand the root cause of Muthu's problems from the Muthu's family member's inputs on the sensible rules to conduct this intervention were considered.

The first step is for Muthu's family members to share their ideas on the best intervention approach for him, and the social worker determined next tasks according to their inputs. This follows Popple (2018) recommendation that family members' suggestion should be considered in choosing the best intervention tasks, and that the next intervention tasks should be determined as the process progresses. In this regard, the social worker should discuss and obtain the family's consensus on aspects like the frequency of intervention, meeting location and duration, service fees and whether social worker should meet the client and his family members together or separately. In Muthu's case, it was decided that the social worker would conduct separate meeting with his family members to identify the core of his problem. From this information, the social worker devised an action plan to help Muthu. Muthu is considered as an involuntary client as he was 'forced' to undergo the intervention, these clients differ from voluntary client who purposely seek help. Here, Muthu was required to work with the social worker as he was arrested and charged in court. It was decided that he should work with a social worker and put under the care of the Welfare department. In this process, these clients are "potential" clients who are part of the target system, which comprise of people the change agent needs to influence to accomplish the goal of the change effort (Payne & Askeland, 2016).

Target System

A target system composes of the people, agencies, and organisational practices that will benefit from the changes initiated by the change agent (Ramsay & Boddy, 2017). According to Stuart, Ackerman, and Westreich (2018), the target system is the "focal system" or the people who must change to meet the client system's goals. In this case, the target system is linked to other systems outside of the client's system, specifically those that cause problems to the client. In this situation, the system around Muthu is including his families, teachers, neighbours and Muthu friends. By analysing the changes in the target system, a social worker can measure the effectiveness and provide appropriate mechanism to implement changes.

Family Background

The closest system to Muthu is his family. Perhaps the most significant member of Muthu's family is Maliga, his mother. Maliga is an unemployed single mother who finds it difficult to find steady work due to her low education level. Due to this, the family has no fixed income and has to rely on a mere RM200 allowance from the welfare department. The family is living in poverty and struggling to make

ends meet and subsequently, Muthu is deprived from nutritional food and health care. This forces Muthu tend to sell illegal VCDs to make his own money. In this case, Muthu's mother must find a steady job to provide for her family. Improving the family's income might help Muthu to turn over a new leaf as it will allow him to experience a more fulfilling and happy life.

School and Teacher

The next target system is Muthu's teachers and schoolmates. The social worker found that his teacher isolated him and put him at the back corner of the classroom as he is deemed as a problematic student. This also has made him lost his friends. He is also struggling academically and has a very low academic achievement. He lost interest in learning and prefer to play truant. The different pressures in his life has affected his self-confidence and he is not interested in going to school as he feels that he is unwanted and unappreciated in his school. Teachers must change their attitude to help children like Muthu feels wanted and have interest in learning.

Neighbours

Muthu's father was the family's main breadwinner and after he left, the family has to rely on allowance from the social welfare department. The neighbours tend to *look down on them and* isolate them. The neighbours ostracises them and refuse to provide help to them. Furthermore, due to Muthu's bad records in school, Muthu is not allowed to play with the children in his neighbourhood as his neighbours fear that Muthu could be a bad influence to their children. As a result, his classmates and his teachers isolated him. This made him feel frustrated and become rebellious. This indicates that Muthu's neighbours must change their attitude and allow their children to socialise with Muthu.

New Friends

Muthu feels socially isolated in his school and in his neighbourhood. He mixed around with delinquents from the town. They are a bad influence to him and they are always involved in criminal activities. Muthu often plays truant and was involved in selling illegal VCDs. Muthu said that he was forced to join their activities because he does not want feel isolated. Subsequently, Muthu was arrested and put under the care of the welfare department for further actions.

Action System

Change efforts in social works are focused on the target system as social work does not work in isolation (Ramsay & Boddy, 2017). Thus, an action system refers to the people whom the social worker works with to fulfil the goals of the change effort. This refers to the system that supports the intervention such as teachers and community leaders (Hepworth, Rooney, Rooney, & Strom-Gottfried, 2016). In this regard, social work processes often involves identifying the target groups and other related parties to produce effective changes when working with the client system.

Determining the Outcome Goals and the Target

Popple (2018) mentioned that a social worker should access all information through the existing system to finalise the factors that need to be highlighted to achieve positive goals. Thus, the social worker is responsible to assess the information to find factors that that might influence the client and identify the targets. Subsequently, this will help the social worker find with the best solution to help the client. In Muthu's case, the social worker divided the data obtained into few groups, specifically Muthu's family, teachers, friends and his surrounding. The social worker interviewed the people in each group to obtain information and encourage them work together to achieve the clients' goal, which is to help Muthu. As result, the change agent system related on how social work agencies and organisations carried out the social service to serve the client (Ramsay & Boddy, 2017).

Families

The closest system to Muthu is his family, specifically, his mother (Maliga). Thus, the best intervention is to involve his mother. The social worker could help Maliga to take care of Muthu and become a good role model for him. As Maliga is unemployed, there is little income, which makes it very hard for her to provide basic necessities to Muthu. It is important to note that while Muthu's family is underprivileged, it is important for the social worker to treat them with dignity. Thus, the social worker could help Maliga by going to the local welfare department to help her find a job and a stable income. This, to some extents, will help Maliga to become independent and decrease the family's reliance towards hands-out for their survival. Another important person in Muthu's life is his grandmother. From the discussion with Maliga, the social worker found that Muthu is very close with his grandmother compared to his mother. He also trusts his grandmother more. Due to this reason, the social worker chose Muthu's grandmother as his caretaker and to supervise his behaviour after the social worker has left. The grandmother will monitor Muthu's behaviour and guide him back to the right track.

School and Teacher

The social worker should discuss Muthu's issue in school with the school's principle and his teachers. The social worker could discuss with Muthu's class teacher to make him understand the real problems faced by Muthu and find ways to solve it. The social worker needs to remind the teacher that he should treat each student fairly so that nobody is left behind. It is important to note that social work for every case is unique and in this case, the teachers in his school should be more attentive towards Muthu. They need to find ways to increase his motivation to learn and guide him back to the right track. One way to do this is through making Muthu sees that the teachers care about and will help him to excel academically and finish all his school tasks. The social worker could advice the teacher to assign other students as mentors to Muthu to provide academics and social support for him. Having a mentor will also help Muthu to socialise more with his classmates and encourage them to accept Muthu in their social circle.

Neighbour

Muthu's bad relationship with his neighbours created a problem for him as they do not want him to be friends with their children. As Muthu's neighbours practice a close family system, the social worker could liaise with members of the community so that he can function socially in his community. In this regard, the social worker needs to change the mindset to Muthu's neighbours so that they neighbours allow their children to socialise and interact with Muthu and so he will not feel isolated from the community.

The Client

The social worker identified the severity of Muthu's problem and look for an effective plan of actions to help Muthu. As Muthu was involved in bullying, the social worker should explain that bullying is an offence and it might have many negative consequences. In this regard, it is hoped that Muthu will stop bullying his friends and change his attitude when he understand the negative consequences of his actions. Another concern is that Muthu does not have any friends from his neighbourhood. Hence, the social worker can try to encourage Muthu to socialise and mingle with other children in his neighbourhood area. The social worker can also organise activities like play dates or parties to help Muthu interacts with other children, so that they can become friends. This will foster friendship relationship which could make Muthu feels appreciated and feels like he belongs in his community.

New Friends

It was reported Muthu's friends are involved with selling illegal VCDs in Taiping and he was forced by his friends to sell VCDs illegally to earn extra money. In this case, the social worker needs to reach out to Muthu's friend and advise them to stop coercing Muthu from to selling the VCDs as he is still at school. Furthermore, the social worker should advice Muthu's friend to stop selling VCDs as it is illegal and can be considered as a criminal offence. The social worker should also make them aware that they

might be caught and face severe punishment from the police. It is hoped that after this, Muthu's friends will stop forcing him from selling illegal VCDs.

Conclusion

In conclusion, in addition to the Popple (2018), the four systems help identify strategies, or social system that social workers can use to help clients improve their social functions and well being. As shown in Muthu's case, the social worker used system theory to identify the root of his problems and understand his situation. This has allowed the social workers to identify some possible strategies and outcome for intervention. Payne and Reith-hall (2019), mentioned that theories in social work practice is crucial as they help create a rational, and systematic ways to address the occurrence of difficult circumstance. While such theories might provide less than perfect outcomes, they present a critical and systematic approach to address a problem and ensure social workers make accurate decision consistently based on the information obtained.

Adams, Dominelli, and Payne (2017) further described that system theories present implicit theories about the people involved, the environment that they are in, as well as the changes to their health and well-being. System theories are responsible to bring the environment back into the concept of 'person in environment'. Hence, as theories are primarily used to assess and form strategies, social workers need to obtain information from multiple systems levels. In Muthu's case, the case will be assessed by a social worker to identify the systems in his context to further understand his problem. This includes his family, friends, teacher and neighbours. Such information will help social workers to device specific action to help Muthu functions in the society.

Presscott (2019) argued that theories provide social workers with conceptual frameworks that guide their practice, such as examining the problems or the aspirations of the community or organisation the clients are in. Furthermore, theories guide social workers to design intervention programmes or treatments to eradicate the issues and improve the clients' social functioning.

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