Urban Sprawl Negative Impact: Enkomi Return Phase

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A B S T R A C T

Most of the cities around the world are dealing with different kinds of the problems such as social, environmental, economic and others. However, for many years, urban planners have attempted to find solutions that fit within the context and have put them into practice in order to shape the form of a city accordingly. One of the controversial problems which most of the developing and developed countries deal with it is urban sprawl, which affects everything and everyone in different scales. For last three decades, even in case of T.R.N. Cyprus, urban sprawl has become inevitable; urban sprawl is recognizable, sprawl construction becomes a profitable business for construction, real-estate, and others involved in this business. Unfortunately, some communities to realize their vision welcomed to urban sprawl construction and enthusiastically embrace it with open arm, such communities sacrifice sociability opportunity and vibrant neighborhood to those single-use towns which is one of the main characteristics is social exclusion and psychological problems, fundamentally one of the key factors can be found in lack of public awareness especially for who prefer to live in sprawl town. In T.R.N. Cyprus urban sprawl didn't promote auto-dependency. Despite urban sprawl in T.R.N. Cyprus have many repercussions, one of the important impacts which are considered in this articles are psychological impact of urban sprawl, also this article attempt to divide urban sprawl leaving condition into three phases, and promote the contemplate phase which makes sprawl inhabitants think and return to inner-city neighborhood again.

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1. Introduction

At first glance urban sprawl is a simple word, which means involving a wide range of professions and specialization, however it can be defined as scatter, unplanned, wasteful patterns development in suburban, this kind of construction out of the city boundaries has brought wide range of problematic issues such as ecological, environmental, psychological, social exclusion and fragmentation, loss of community, increase in household expense and so on. In most of the literature, urban sprawl is called as a multifaceted concept; most of the scholars and thinkers measure a variety of impact for this multifaceted phenomenon.

Sprawl which is low development and this land development occurs at the edge of the urban location which is prompt auto-dependency. Sprawl attempts to transform thousands of acres of the green field into single-family and detached houses increasing the administrative

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cost for government in providing sufficient basic infrastructural amenities such as access way, sewer/water pipe etc. (Soule, 2006).

History of the sprawl dates back to 1920s, people in America and northern parts of Europe, started moving out of the urban boundaries, people who are moved to suburbs were affluent and powerful. However, over a period of time, this became a mass movement. For instance, during the interwar period in London, tens of thousands of households from medium income class of society and capable to move out from over-populated central neighborhoods relocated to row houses, single-family and detached houses in suburbs (Bruegmann, 2005).

One of the main factors is overpopulation, everyday urban population grows and this growth is inevitable. The roots can be found in increasing the number of the immigrant to the urban and higher number of births than deaths are important factors and contribute to increasing of urban population (Bhatta, 2010) and this makes urban area crowded, urban area with massive and compact housing resulted in the decrease of greenery. On the other hand, the humanity based on historical recorded always has rural lifestyle experience, this scheme during the time transfer to the urban lifestyle. Despite now day's again most of the people prefer to have rural lifestyle, one of the reasons is proximity to nature which is offer healthy life, majority of people, who live in crowded ill city want to escape and find their dream at countryside in order to get peaceful life which is not achievable at downtown, also people looking for houses with more privacy, bigger front yard with small garden (Iram, Rasool, Shahzad, & Saeed, 2012).

In case of the northern Cyprus this trend also valid, most of the middle-income class and those who are from the affluent group of Cypriots community in order to realize their visions start to exodus into urban sprawl town and move out of city skirt, another supporting idea is, detached houses in sprawl town was cheaper and sweet, thus such fascinating will encourage them to immigrate, as it mentions such kind of the exodus mostly occur in affluent group of community, however, such trend can represent other repercussions which are social fragmentation and known as one of the important impact of urban sprawl to the society.

On the other hand, constructions companies didn't trade off their business, they moved towards promoting urban sprawl in T.R.N. Cyprus, they attempt to realize dreams of people at the countryside at affordable land, of course in order to provide cheap houses, development will inevitably move creep beyond city boundaries.

Whenever this sort of the low density and single-use developments out of the city border occur, they provide inadequate infrastructure which is not appropriate to provide sufficient services for newcomers and inhabitants nevertheless such kind of leakage somehow will be balanced by sprawl inhabitants base on auto-dependent to provide their primary necessity, hereof the turning point to the problem which is loaded by urban sprawl, everything starts to effected accordingly probably later on sprawl inhabitants get relevant reflects of sprawl in their lifestyle

The aim of this article, focus on psychological impact for urban sprawl inhabitants and recognition the sprawl phases, this study as an objective consider the possibility of return phase as rescue process to bringing urban sprawl inhabitants into the neighborhood.

Methodology of this article based on case study in "Turan Kaynak Sitesi" town (Figure 1) and its inhabitants in T.R.N. Cyprus as well as problem solving and attempt to filling literature gaps, especially in this subject there is lack of relevant literature in this subject which encourages urban sprawl inhabitants to return again into inner neighborhood.

2. Literature Review

One of the significant and also important evidence about cities from the many years ago until today shows that there was the enormous difference between rural and urban lifestyle. Within the fortification city exactly like most of early cities, always visitors face with a very dense cluster with mass of buildings, narrow streets with cul-de-sac, and also a vibrant with variety of rich dynamic urban life which is offer to visit lots of option and this makes lots of choice for especially those who capable to get them (Bruegmann, 2005).

In opposite point of the dense cluster there is disregard trend of urban sprawl and become a primary method of urban expansion of course because of the negative effect in social, environmental and economy most of them scholar criticize it especially during recent years (Daneshpour & Shakibamanesh, 2011). On the other hand, sprawl intensify the cost of infrastructure in several manners in order to provide services for the fewer household government should provide their necessity such as road, water, and sewer if development was compact instead of sprawl, same cost amount can supply more households (Burchell, Downs, McCann, & Mukherji, 2005).

Many thinkers believe that infrastructure cost saving entail high densities rise, despite both businesses and consumers wish faraway location which is easily found inexpensive plot, on the other hand, more clustering of businesses anymore because of contemporary way of communication is unnecessary, therefore people choose place to live far from urban area and work it possible when the auto travel cost was low, however, there is negative impact and psyche costs especially for young and elderly people those who cannot drive, and this make limit for them in order to access community facility and etc. (Ewing, 1997). A study in both single-use and mixed-use show that people who live in sprawl area didn't have a sense of community this because of the lack of interaction possible in sprawl area environment (Ewing, 1997).

Most of the research base examined on depressive symptoms believe that disadvantaged environments were extremely stressful for sprawl residents, of course, the cause of both mental health and physical injuries may be determined as social disorganization (Latkin & Curry, 2003). From another point of the view high quality of the urban which is found in neighborhoods with variety and strong kind of the opportunely, for instance, the cultural activity can increase the social cohesion, on the other hand, people those who have the transaction with such kind of neighborhoods mostly was creative people (Gertler, 2004). However urban sprawl in contrasted with social cohesion and increase another negative trend which is social fragmentation, researcher substantiation that high level of fragmentation leads the society to the lowest level of contribution (Chakravarty & Fonseca, 2014).

The disadvantage of social fragmentation during last year's became an outstanding discussion. In fact, there is an effort which is trying to show that people who among fragmented society was dealing with long-term mental health problems (Morgan, Burns, Fitzpatrick, Pinfold, & Priebe, 2007). On the other hand, green accessibility shouldn't be forgotten as an important issue which is impact on mental health, many researchers believe that those residents who have appropriate access to green environment for instance park, they are less than other people involved in risk of stress, also increase the social wellbeing are one of the other important aspects of the green accessibility (Alcock, White, Wheeler, Fleming, & Depledge, 2014).

People leave their cities to have a healthier life, green accessibility, a cleaner environment and escape from ill city nerveless urban sprawl present them reverse, actually, sprawl development offered poor air quality because of auto-dependency, weak and unhealthy watershed, loos of walking opportunity from work and school to house raised the health risk in several manners (Schmidt, 2004). There is the definition of the health which is provided by World Health Organization (WHO), according to WHO "Health is a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity." Mental health itself can drive from the social determinants (Manderscheid, et al., 2010).

Sprawl has a wide range of impact in public health of course regarding the age, race, occupation, social class and so on all of the was determine factors, some people bear more risk than other. In sprawl community most of the travel was done by automobile and this make the family life more involving with chauffeuring, most of the family should be deal with collection of following mission taking children from school and/or elder parent to doctor, running to the bank, shop and etc. however most of the research show that woman deal more than man with mention responsibilities, the reason is women more involve with children, also mental stress which is related to driving put women at serious risk (Frumkin, Frank, & Jackson, 2004).

As it mentions the impact of sprawl distribute between society member accordingly and children were no exception, but children suffer from sprawl more than adult especially dose children who are unable to reach school by bike or walking on the other hand if their school did not offer any physical activity they face with obesity. Moreover, children who are living at urban community has more opportunity to roam but in sprawl town because of parent fear this was eliminated, however, if we consider adult at least they have a chance to drive for sport club (Frumkin, Frank, & Jackson, 2004).

People those who looking for the green environment and for this purpose move to sprawl this was a short change for them because during the time the green aspect under other obstacle lost its values (Ontario College of Family Physicians, 2005). In order to attack urban sprawl government should renovate and revitalized inner neighborhood which prevents city center decay of course by following such police city center enable to increase social interaction such cohesion enhance the quality of the urban area (Brueckner, 2001).

Researcher shows that with a real prospect for neighborhoods with government funding and

accompaniment of the relevant instituted by following the correct strategy and control the neighborhood in a way that increases the quality of life at inner city and decreases the crime level all of them together might encourage people to return to the inner city (Power, 2001).

3. Methodology

"Turan Kaynak Sitesi" which is one of the famous and sprawl town in Famagusta district at a proximity of "Enkomi" (Turkish: Tuzla) village at 35°09'N and 33°53'E (Figure 1), this town can be called as one of the earliest urban sprawl town in Famagusta district which is constructed in about 1994 and town had an area of 56 896 m² with 63 buildings which are detached, semidetached and apartment units, most of the inhabitants are affluent, they are with variety of the occupation, nation, age, gender, marital status, ethnic and etc. data collection was based on interview, observation and document analyze from the "Turan Kaynak Sitesi" as case study.

Figure 1. Cyprus Map, location of Famagusta city and "Turan Kaynak Sitesi" at proximity of Enkomi (GIS developed by author).

Thus, losing a sense of place led to decrease social participation/ communication, safety and lack of identity increased social conflict, crime, and transgressions in towns. According to advantages and disadvantage of this era of architectural design has been illustrated in Table1. To sum up, designer tried to make integration between past and present so post-modernism style started to overcome the objectives of the designs.

3.1. Interview

The interview conducted among approximately half of "Turan Kaynak Sitesi" household, and few Cypriot citizens who plan to move to this town in future, and it was with diverse social as well as psychological trend also multiplicity of the interview base on the personality, occupation, age and etc. Relevancy of interview regarding the personality and characteristic of interviewee make interview process more difficult, however, to interpret interview and

reflect the result need to define a certain main category as below which are more classified and easy to understand:

Reason for living in sprawl town: "… always looking for a quiet place, sense of relaxation, proximity to nature and green area, far enough from Famagusta and rumors, out of the congestion, detached house with more privacy. Now two floors villa with big garden, enough space for cars. However, this are in contrast with dose day's which is lived at one floor apartment, just 3 or 2 beds, lack of enough space for activity, lack of parking space for cars, noisy and loud neighbors, untidy dark staircase…" most of them sell its apartment in order to realize their dream and with same price or even less at "Turan Kaynak Sitesi" they have chance to bought detached house.

Increase in household expanse: Most of the inhabitants believed that household expense increased, however, this didn't affect too much their lifestyle because they are wealthy and/or middle-income people, on the other hand, auto-dependency problem was not concerned them, even when they lived at inner neighborhoods they were auto-dependent and used the car for everyday life as Cypriot habit. The main problem is, when a specialist needs to be called for any mechanical or electrical service, the service providers ask for extra cost because of their house located out of urban skirts.

Problems in daily life: They believe that during the preliminary stage of town construction there were roads and access problem especially inner town roads were dirt and this created lots of the dust and noise especially while heavy vehicle passed, meanwhile most of the time big trucks movement in town made threat to their children. Additionally, water shortage on few days was a concern and water shortage continues during summer, but nowadays the main problem was inadequate lighting elements in some of the inner roads of the town, on the other hand during winter or after any heavy precipitation town face with waterlogging especially on the main road.

Opportunity to socialize: Town inhabitants mention that there is no social activity in "Turan Kaynak Sitesi" or in the town nearby and to involve in social activity or some other event they need travel to Famagusta or other big cities around. However, most of the inhabitants have a common opinion "… time was not enough to involve or get benefit from the social activity, some of them spending time with children, elder parent, some of them suffer from commuting, some of them invite friends to the get together over weekends …"

Neighbors: Town inhabitants mostly thought that they know their neighbors, however some of the people didn't know them because "... some of them was just an empty house or some of the house residents were foreigner, despite most of the town residents in order to find playmate for their children should know their neighbor, some residents need neighbors to get help in trouble ..."

Neighborhood benefit: Nobody has any clear answer for this subject, some of people believed that "... neighborhood and sprawl town both has its benefits ..." some people believed that "... despite neighborhood has problem, but at least vibrant and provide chance to meet friends ..." some of them for reasons stay "... because of my parent, I should live in in "Turan Kaynak Sitesi", otherwise prefer neighborhood ..."

3.2. Observation

Observation work as interview complementary, it was personally and deep observation, with same structure but it conducts from a different perspective, however observations process from "Turan Kaynak Sitesi" town and living condition of inhabitants show that there are some conflict and missing part in interviews, of course observation attempt is expletive those missing parts which are not covered by interviews, observation from the town put in to the following categories:

There are limited and inadequate interaction and communication between people, they know each other somehow somewhere but in fact, they don't want to be involved with each other, and actually they didn't know their neighbors as family friendly, interview also proof of this, they looking and communicate with each other for a certain reason.

Inhabitants feel that they belong to the wealthy group of society and "Turan Kaynak Sitesi" town also belong to affluent and wealthy people, such point of view result in deep social fragmentation and high level of social fragmentation reflect in social resentment.

Town minimized in sidewalk even available sidewalk used as car parking lots (Figure 2), on the other hand, inadequate greenery which is the contrast with the idea of proximity to nature is another aspect, all of them accordingly effect on the human sprite.

Children mostly alone, they entertain itself within plot boundary, indeed there is no playmates in neighbors also they didn't have chance to run out, because of parents fear, elderly also in same manner imprisonment within house boundary, especially children and disable or dose who are not able to get benefit of car are

victims of urban sprawl, because there is no any sociability and communication opportunity for them at town, such difficulty has wide range of repercussions, of course psychical impact is inevitable.

Most of the town inhabitants were not aware of sprawl and related impact into their daily life, most of them during interview even understand impacts of urban sprawl and this directly related to lack of awareness, still between inhabitants there are some people who willing to return into neighborhood, however some of them has reason to stay.

Figure 2. Inadequate greenery and lack of sidewalk, "Turan Kaynak Sitesi" April, 2015 (Photos taken by author).

3.3. Relevant interview and document analyze

To clarify the process of interview and observation for this methodology, analyze relevant document as well as an interview with who are specialists in planning and work many years directly with "Turan Kaynak Sitesi" are inevitable:

According to Batuhan Bayramoğlu (May, 2015) head of planning department in Famagusta municipality explains that "... after bankruptcy of the "Turan Kaynak Sitesi" construction company about more than half of the houses leave as unfinished and sold to customer and even were not certify by municipality, this means that those houses are an illegal constructions from municipality point view ...", this means that those houses are not safe houses from the structure and/or architectural point of view which is harmful and dangerous for its resident.

According to Naci head of water department in Famagusta municipality, "... summer water shortage, winter waterlogging, "Turan Kaynak Sitesi" is one of the problematic towns in Famagusta district for supplying water and sewer most of the citizen had complained in last decade for water shortage in town, however, they team satisfied to solve this problem, from 2005 municipality start a project in order to increase the water pipe diameter and change the water pipes with High-density polyethylene (HDPE) ... Naci Taşeli mention water shortage during summer still is main problems, because of increasing temperature increase water consumptions accordingly, on the other hand

during winter because "Turan Kaynak Sitesi" soil is not permeable after heavy precipitation make town waterlogging ...".

According to the Statistical Service Cyprus (2010) published report, 84.3% of trips made by motorized vehicle, 14.8% none motorized vehicle and just 0.8% by public transportation, it shows that Cypriot people already auto-dependent and it should be taken into consideration, sprawl in Cyprus was not promoted auto-dependency, in fact Cypriot didn't have any choice, lack of public transportation because of inadequate demand to run public transportation as well as lack of biking path and minimized in proper sidewalk, make them chauffeur. On the other hand, auto-dependency is still inexpensive and easy for families, and this aspect from many years ago combined with their culture, of course yet Cypriot are a social and well-being people and it was one of the valuable issues which are combined with their rich cultures.

3.4. Result Visualization

By getting accurate in collected data and literature, this idea comes to mind that, three phases are shaping the urban sprawl, this phase are vision, obstacle and contemplate, vision phase occur while people decided to move into sprawl town and the rest phases while living at sprawl town while experience the situation and this represent obstacle and contemplate phases, of course, all the phases are depended to each other and run one by one as sequence (Table 1).

Table 1. Main sprawl phases while people moving and living.

While moving to Sprawl	While living at Sprawl	
Vision phase	**Obstacle phase**	**Contemplate phase**
Grounds -Proximity to nature -New life style -Fresh air -Escape from ill city -Increase privacy -Detached house -Bigger and green yard	-Auto-dependence -Increase household expanse -Lack of primary infrastructure -Loss of sociability and communication -Psychological and health Impact	-Be patient and dealing with problem
		-Return back to the neighborhood

In vision or initial phase people start to perceive that, there is a necessity to move into sprawl town, they want to realize their vision such as proximity to nature, fresh air, new lifestyle, escape from city center, increase privacy, detached house, bigger and green yard and

etc. they find solution in sprawl town which encourages them to move out of city skirt.

The second phase call obstacle phase, this phase occur while living in urban sprawl town, people start to experience and perceived the problems and relevant impacts which belong to urban sprawl, the outstanding are auto-dependence, increase household expense, lack of primary infrastructure, loss of sociability and communication, psychological and health impact and so on, most probably during this phase the initial ideas lost its main value, because inhabitant face with wide range of obstacle which is not predicted before.

Finally as contemplate or thinking phase, if inhabitants aware about urban sprawl impacts, they start to make comparison between sprawl town and inner neighborhood, decision should either be patient and deal with problem or return back to inner neighborhood, still there is possibility for who are not aware of impacts, indeed this directly or indirectly related to impressed degrees of impact by urban sprawl whiten periods of living at sprawl town, however awareness of the difficulties of living and impacts of urban sprawl can shape inhabitants decision accordingly otherwise they stay with tolerance.

4. Discussion

By consider finding phases this outstanding question as an objective of this article come to mind as well, does any rescue possibility for urban sprawl residents? In fact there is lack of proper literatures and research in order to provide the clear answer for this question, however there is some inadequate research but even most of them didn't consider properly a possibility of inhabitants to return into inner city, researcher is insistence on role of government, of course, role of governments are crucial, according to the Jan Brueckner (2001) and Power (2001) government and relevant institute should be followed practical policies in order to the revitalization and renovate the inner neighborhoods as well as taming crimes and vandalism which are resulted in social cohesion and this reflects on enhancing the quality of life at inner neighborhoods, following such policies "... might encourage 'urban pioneers' to move into inner city neighborhoods ..." and it can be a tackle to social exclusion and fragmentation as well (Power, 2001).

Although if urban sprawl phases which are present in this article become practical, whole sequence are summarized as following flowchart (Figure 3), process look like a loop and all sequence directly dependent to the contemplate phase which is shaped urban

sprawl inhabitants decision, to leave sprawl either town or be patient and dealing with sprawl impacts, if citizen stay in sprawl town and dealing with obstacle this become a linier process, otherwise sprawl habitant leave sprawl town and return into inner neighborhoods which make process like a loop (Figure 4), of course, the outstanding question is, why this process becomes a loop process? By considering process leave inner city once again after rescue is not out of mind especially for next generation and this make process like cycle, certainly rule of government and relevant authorities for sprawl inhabitants rescue both in enhance urban quality and increase public awareness are inevitable, one of the important effort during last year's was published of 'The Health Impact of Urban Sprawl' as an information series from Ontario College Of Family Physicians to present urban impacts and increase the public awareness, of course following such policies is appreciated and resulted in increasing public awareness for both who live in urban sprawl and/or inner city, meanwhile in this idea can prevent the loop process which is also one of the possible condition.
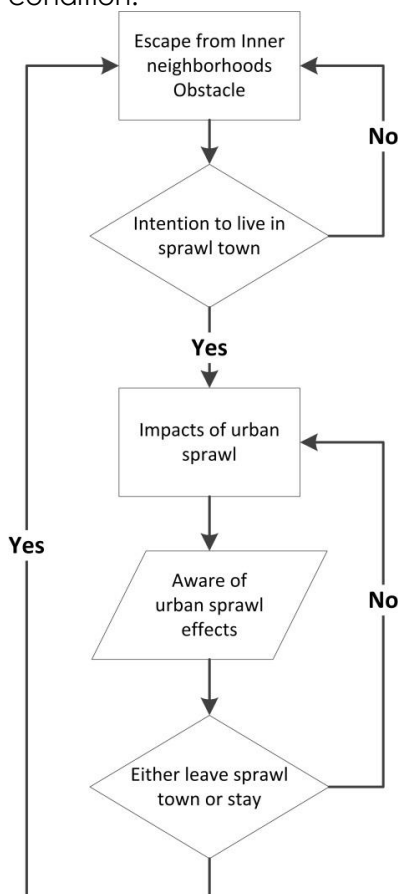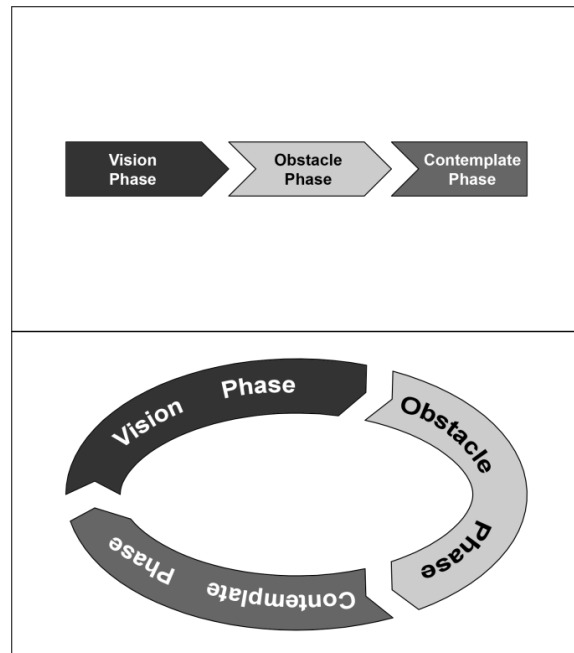

Figure 4. Linier and Cycle path as Urban sprawl phases (Illustrations by author).

4. Conclusion

Present explanatory research show that "Turan Kaynak Sitesi" habitant leave inner neighborhood in order to realize their vision at country side and this found in lack of awareness, they have great perspective from urban sprawl and most of the "Turan Kaynak Sitesi" inhabitants was not aware about the urban sprawl impact and further affect circumstance on their future life and this one of the important aspect, nevertheless there are some people who wish to leave urban sprawl and interview, observation result is proof it, however it shouldn't be forgotten that Cypriot are already auto-dependent, and this makes them convenient to choose urban sprawl at first glance.

Furthermore, this article has drawn attention with presenting urban sprawl as three phases and in addition, present contemplates phase as return process which is a possible condition for urban sprawl residents rescue, of course, to achieve this purpose, relevant policies should follow by the government, local authorities and related institutes. Interview and observation show that still some people are willing to live at inner neighborhood, certainly when people who have tendency to move into sprawl town, inform about urban sprawl and farther impacts, direct or indirect can affect their incentives, this can be one of successful solution against urban sprawl and toward compact cities, in order to bring urban sprawl inhabitant again to inner neighborhood.

However, there are two factors which are support rescue process and idea of

Figure 3. Flowchart of resident rescue (Illustration by author).

contemplate phase, first government policies in order to improve quality of urban neighborhoods, second inhabitants should aware of urban sprawl impacts and it means that public awareness work as catalyst in this process, obviously role of government and local authorities in both of terms are vital.

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Conflict of interests

The author declares no conflict of interest.

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