Strategic management tools for sports management in a public administration body: A case study


ABSTRACT

Physical activity and sport are basic requirements for a healthy population and public administrations should provide the necessary services for the wellbeing of their citizens. However, there are few clear directives around the priorities and objectives of administrations in terms of sports provision. The present study uses the case study method to show how strategic management tools are decisive when drawing up the strategic sports management policies of a town hall.

Keywords: Strategic management, Sports management, Public administrations, Case study.

Cite this article as:
INTRODUCTION

In today’s world nobody doubts the importance of sport and physical activity for health, leisure and as an economic stimulus linked to society’s concern for sustainability and the work-wellbeing balance.

The Spanish Constitution and regional/local legislation require administrative bodies to promote health/physical education and sport and town halls are required to provide sport and leisure facilities. Town halls must also take responsibility for the promotion, planning and management of sports to encourage participation, integration and social cohesion. The work of specialists in sport is key to the future success of the management of sports installations and equipment (Jamieson, 1987). Despite all this, many town halls enthusiastically promote sport but with very unclear objectives and scarcely visible results (Noël Racine et al, 2020).

Strategic management is aimed at allowing decision makers to know their strategic position and to define and achieve their objectives. Although strategic management techniques are usually employed in the business world, they can be used by all types of public and private organisations to work towards their objectives.

The aim of this study is to use different strategic management techniques to analyse the case of the sports department of a Spanish town hall (El Campello) and thus orientate other sport providers in the determination of their strategies. We will follow the strategic tool protocol proposed by Guerras Martín and Navas López (2015), which means that after a brief introduction of the town in question we will analyse the vision, mission and values of the town hall. We will perform an external analysis through PESTEL and Porter’s five forces. An internal analysis will be made through DAFO and CANVAS, which will lead to the drawing up of strategic lines. Finally, we will present the main conclusions of the study.

Contextualization

The town of El Campello (situated in the South-East of Spain in the Valencian Community) has a population of 28,930 (INE, 2020) and a coastline of 23 km. It is a coastal town with an excellent Mediterranean climate, ideal for all sorts of nautical and outdoor sports.

The current Municipal Sports Program in El Campello is run by a private company that provides programs for both children and adults. There are about 560 users of the children’s program and 680 users of the adult’s program. There are also 11 private sports clubs on the Municipal Registry of Associations which complement the provisions of the Municipal Sports Program. The sports clubs have around 1,240 participants.

The activities of the municipal sports program are aimed at children and adults. The most popular children’s activities are: football, badminton, tennis, yoga, parasports, pre-sport, psychomotor education, etc. and for adults toning, pilates, fit dance, tennis, oriental dancing, yoga, etc. They also organise special sports events such as get fit at Christmas, carnival fancy dress race, Easter and Christmas workshops, El Campello Fitness, Aquathon and other swimming events, etc. There is also a school league for the local schools.

1The present paper is based on the first author’s final work for her Master, she is a technician in the sports department of the town hall under study.
Vision, Mission and Values

The vision, mission, and values of an entity help define what it aims to be and what its future vocation is. Its vision determines how it wants to be in the future in that it allows us to identify the differences between what it is now and what it wants to become (Hamel and Prahalad, 2005). The mission is the raison d'être of an organisation, its identity and the knowledge of where it is and what it represents. It answers the following question: What is the essence of our business and what do we want it to be? (Hax and Majluf, 1994). Values reflect the principles, beliefs, rules and commitments that guide the actions of an entity to fulfil its vision and mission. The underlying idea is that some objectives cannot be reached at any cost, but that certain ethical principles have to be considered that define how the entity acts and influence the socially responsible behaviour of an organisation and its members (Hendry and Hope, 1994).

The vision of El Campello is to become a point of reference in physical activity by offering sport activities, promoting sport events that will attract tourists and providing its citizens with a range of sports facilities. The final aim is to convert El Campello into a healthy town. Its mission is to guarantee all its citizens access to physical activity through a quality service that satisfies their needs and employs qualified, committed staff and is continually innovated and improved, leading to universal sports participation. The values behind the provision of sports activities in the town are: a) Meeting the needs of the citizens (providing appropriate services). b) Active listening (communication with citizens). c) Teamwork and transversality. d) Innovation and continual improvements. e) Sustainability. f) Quality of service. g) Respect, equal treatment and solidarity.

EXTERNAL ANALYSIS

An external analysis, by which we mean an analysis of all the factors surrounding an organisation, is important to better understand its possible actions as well as its threats and opportunities. Within this environment we can distinguish between the generic environment, made up of factors that affect all the organisations in a certain socioeconomic system, and the specific or competitive environment, which refers to factors that affect the organization through being in a specific industrial sector. To analyse the generic environment we use the PESTEL analysis, whereas for the competitive environment analysis we use Porter’s five forces model.

PESTEL Analysis

This analysis identifies the general environment factors that affect organisations, PESTEL stands for Political, Economic, Sociocultural, Technological, Ecological and Legal (Ho, 2014). Applying this analysis to the sports service of El Campello gives us the following situation:

From the POLITICAL point of view, the national and international situation is at a critical moment due to Covid-19. At the municipal level, political change could affect strategic planning as objectives and economic investments may change.

Looking from the ECONOMIC point of view, El Campello has an unemployment rate of 10%, which is low compared to the national average (Generalitat Valenciana, 2021). The service sector accounts for 75% of the economic activity of the town, with another 11% in construction. Only a third of the working population work in the town, which means that it can be considered a dormitory town. There are good transport links with the provincial capital through tram, bus, motorway and roads. It is a tourist town with 8,500 beds distributed among hotels (500), camping sites (1200) and tourist apartments (6700) and the hostelry sector...
is also important. El Campello has a marina and a fishing port. It also has an industrial estate with complementary industries.

**SOCIOCULTURAL.** 17% of El Campello’s residents are foreign, of which 71% are European. 20.5% of its inhabitants are over 65 years of age, which makes it quite an old population (Diputación de Alicante, 2019). There are around 100 associations of various types: educational, civic, for European residents, religious, and environmental, but the most numerous are those with a cultural character such as music, dance, local festivals and sports associations.

**TECHNOLOGICAL.** Currently, and especially as a result of COVID-19, there is a great dependence on technology, as working from home has become part of the fight against the pandemic. Whether the epidemiological situation improves or worsens, technology is a key factor in the fabric of global production and is an essential part of the way in which companies and individuals communicate (He, Zhang and Li, 2021).

**ECOLOGICAL.** The fields of economy, industry and even cities are becoming more and more convinced of the need to respect, protect and look after the environment, with sustainability and recycling being basic values (Cui, 2018). El Campello has fortunate climatic conditions and kilometres of beach, which permit outdoor sport all year. Outdoor activities lead to awareness of concepts such as sustainability and recycling (McCullough, Orr and Kellison, 2020).

**LEGAL.** The legal department of the town hall is in charge of processing the paperwork of court cases, but each department is involved in the legal issues relative to its area. In the case of sports, all legal aspects are dealt with by the person in charge of sport management and other issues, which makes it difficult to perform optimum management. As with other aspects of public management there is an excess of bureaucratic paperwork in the legal area, with rigid and tedious laws. Additionally there are also the current constant rule changes due to COVID-19, which lead to legal insecurity.

*Porter’s five forces model*

This model is used to analyse the specific environment, which comes from being in a certain economic sector or industry, in this case sport. For Porter (2008) the competitors of a company are not only companies in the same sector that offer the same type of products or services, but also new potential competitors that offer substitute products and suppliers and customers as they can influence conditions such as prices or quality and, therefore, long term profitability.

**RIVALRY AMONG COMPETITORS.** Among the competitors of the El Campello sports service are neighbouring municipalities that also offer sports services, and private companies. In the first case, although they are close and there are good communications with other towns the services offered are similar, which dissuades users from travelling. Moreover, the beach offers great possibilities for sports activities that cannot be practiced in inland towns. The private sector has higher prices but with good facilities.

**NEW COMPETITOR THREAT.** Chief in this regard are online sports activities as a source of threat (Giang et al, 2010). Online sport may be preferred for time management reasons (avoiding travelling time) and for tendency reasons: new applications substituting in-person classes, such as Zwift, which allows triathletes to train at home.
SUBSTITUTE PRODUCTS THREAT. There are various substitute products. Firstly, people organising their own outdoor activities, which has been increased by the social distancing requirements imposed during the pandemic. Secondly, there are leisure activities linked to festivals, which involve bad habits such as drinking alcohol, or videogames. Finally, cultural, musical, artistic and other similar activities are another source of substitute products.

NEGOTIATING POWER OF CUSTOMERS AND SUPPLIERS. In our case, customers do not have great negotiating power as they are numerous but not associated, so that as individuals they cannot have much influence over the town hall’s sports provision. The suppliers do not have great power over a public administration such as the sports department of a town hall either, they want to work with the department. They need to be serious when it comes to contracts and budgets to retain some negotiating power.

INTERNAL ANALYSIS

After the external analysis we will now make a strategic internal analysis using DAFO and CANVAS analyses.

**DAFO Analysis**

This analysis (Dees and Hall, 2012) bridges the gap between an external and an internal analysis of an organisation, as it identifies Opportunities and Threats from the environment as well as the Strengths and Weaknesses of the organisation (SWOT, Strengths, Weaknesses, Opportunities and Threats). This technique helps companies identify the actions necessary to take advantage of the opportunities detected and eliminate or be prepared for threats, making good use of strengths and minimising weaknesses.

In terms of STRENGTHS, El Campello town hall has a wide range of activities in its municipal sports program and has a considerable volume of users. The staff in charge of sports management are experienced and motivated, although they are few in number. There can be staff transfers between the departments of the town hall. There are a large number of sports clubs in the town. Finally, outdoor activities and events are organised practically all year round.

With regard to WEAKNESSES, there is not enough town hall staff to directly manage sporting activities, there is no municipal staff group. There is organisational and bureaucratic rigidity. There is a lack of technological resources such as online payments and reservations of facilities. The town hall does not seek economic profits, rather it seeks social profit, which could make the services unsustainable. The facilities are obsolete and oversized. There are no good publicity campaigns for the sports service due to a lack of qualified staff. It is especially difficult to interact with young people. The associations are occupied with their own concerns. What is needed is a participatory council to collaborate with the town hall. There is no current well defined strategy and the work is done with no planning, which is the main reason for this study.

There are various OPPORTUNITIES in the environment that should be exploited, such as the fact that the citizens are concerned about health and are open to body culture and sport. The town is well connected with the capital and neighbouring towns. It is a seaside town, in which one can combine sports provision with tourism. This opens the possibility of introducing new services that satisfy new needs and give the town a new touristic-sporting image, enhanced by the year-round good weather.

In terms of THREATS, the most imminent, but which may disappear in the medium term, is the health crisis caused by COVID 19, which involves economic and social implications, restrictive measures, uncertainty and
rule changes. The increase in outdoor activities could provide competition for the town hall’s activities. Finally, there is a lack of coordination between the Ministries of Health, Sport and Education.

**CANVAS Analysis**
The CANVAS model is used to analyse the business model of an organisation; it is a description of the foundations on which it creates, supplies and captures value through its activities and clients (Osterwalder and Pigneur, 2010). According to the model, there are 9 basic elements that an organisation should consider when deciding how to compete. These basic elements can be represented graphically in a panel, with the right hand side showing how the organisation connects with its market or customers, in other words, what are its **Customer Segmentation**, its **Communication Channels** and its **Customer Relations**. The right hand side shows the internal organisation of its activities in terms of what are its **Key Activities**, its **Key Resources** and its **Key Partners**. The lower part of the panel shows its **Income Sources** and its **Cost Structure**, while the centre of the panel shows its **Value Proposition**, which is the central element and essential to the business model as it differentiates an organisation from its competition by determining that customers prefer an organisation over its competitors (Guerras Martín and Navas López, 2015). Below we apply the CANVAS model to the 9 basic elements of the sports service of El Campello town hall.

**Customer segmentation**
The customers/users are the key to any business, it should be clear who they are talking to and how. Once the customer segment is identified, its needs can be found and it will be possible to define the product according to the customer/user type and the distribution channel. In our case, the product is aimed at everyone: A) School sports: infants and primary. B) Youth – from high school onward, aged between 12 and 30. A special mention for the new generations: generation Z and the millennials. C) Elderly and vulnerable. D) Elite level sport. E) Sports clubs and associations.

**Communication channels with customers**
Communication channels are the way in which an organisation communicates with its customer segment. These channels will be different depending on the population profile. The channel that is common to everyone is social media, nowadays used by the majority of the population and an economical, effective and even viral means of communication (Hambrick, 2017). However, in a town, word-of-mouth is a very important channel, as is verbal communication through key agents such as teachers or monitors, in the case of school children and adolescents.

**Customer relations**
For school children there will be periodic monitoring and valuations of their sports activities because if they are not motivated they can be offered alternatives from a wide range of activities. For young people there should be constant adaptation to their demands, creation of novel, experience generating, activities, active listening and a quick response capacity. For the elderly and vulnerable there should also be periodic monitoring and valuations of their activities. The monitors should be very reachable and the activities very personalised, the users should feel that they are important to the monitor. Any achievements by users should be recognised and there should be group building (cohesion) to help users feel good (sense of belonging). The needs of clubs and elite sportspeople should be met through friendly contact, active listening and by welcoming their participation.
**Key resources**
The key resources to carry out the sports strategy of the town hall are: The monitors of the sports program, social media and the dynamic web page, the budget and the maintenance team of the sports facilities. We will return to them in the next section.

**Key activities**
Strategic planning, the object of this study, determines, according to the population segment, which activities are the most suitable for each profile and the rhythm of their implementation, as described in the next section.

**Key partners**
Key partners are those that create bonds to make joint efforts to obtain better results. They are often alliances with non-competitor firms aimed at reaching a wider market or even with competitor firms that operate in the same market niche with the aim of achieving a mutually beneficial relationship. External collaborators in our case may be a sport doctor, agreements with the University of Alicante or with other towns or countries, the supplier of sports material, the architect that designs suitable sports facilities, etc.

**Income sources**
The final aim of the town hall is not to make money. The prices decided on by the authorities are social prices that allow access to sport for the whole population. Thus the main aim is to obtain social rather than economic profits. Profitability for the town hall rests on the following points: That the citizens feel satisfied and that their needs are covered, that they attend the activities promoted by the town hall, that the comments on social media are positive and have a lot of “likes”, that the users wear El Campello merchandising such as caps and t-shirts because they feel a sense of identity with their town and are proud to be a part of it.

**Costs structure**
In general the fixed costs are the monitors’ salaries and the maintenance costs of the sports facilities. Variable costs include sports material and equipment.

**Value proposition**
The value proposition of El Campello’s sports service consists in including all segments of the population and in making sport and physical activity accessible for everyone. To this end there will be physical activity programs in primary schools and there will be an attractive sports program with active listening to the needs of the different segments of the population. With regard to youth, we will promote sports activities to improve their academic performance and encourage a healthy lifestyle. For seniors there will be a sports program designed to prevent pathologies and encourage active aging. There will be subsidies and aid for competitive sport and sports clubs to help them maintain their activities.

**STRATEGIC LINES**
The strategic analysis in the previous sections has led to the establishment of the general strategic lines of the sports department of the town hall in question, they are:
- Foment sport and physical activity for all.
- Construct, renovated and maintain sports facilities.
- Promote sports tourism, communication and sports events.
- Favour sports associations: clubs and elite sport.
**Foment sport and physical activity for all**

There is strong medical evidence around the poor health effects of a sedentary lifestyle; Spain is one of the most sedentary countries in Europe so it is necessary to establish preventive and therapeutic measures (González-Gross and Meléndez, 2013).

Physical activity and sport are tools for social transformation and improvement so the participation, conscience raising and education of the population is vital. The town hall should focus its attention on providing the resources needed for physical activity and sport so that the citizens can participate properly and responsibly, leading to healthy, long-lasting and autonomous habits.

Physical activity and sport provoke great social and public interest. It is a service that generates various benefits in terms of health, education, and ethical and social aspects that are demonstrated in numerous studies.

The town hall of El Campello will have a physical activity and sport provision that is diverse, quality and adapted to the needs and characteristics of its citizens. These sports activities will go hand-in-hand with respect for the environment and responsible and sustainable use of natural spaces.

Special attention will be given to sport for children as we believe that they should be taught to do sports from an early age so they can enjoy the benefits when they grow up (Chemerilovai et al, 2019). Regular physical activity contributes to wellbeing in different ways; physically, psychologically and socially.

Improved motor skills and conditional capacities; reduced risk factors; control over certain illnesses, both physical (asthma, obesity, heart disease, diabetes,...) and psychological (depression, anxiety, stress,...); acquisition of healthy habits (hygienic, dietary,...); social integration and cohesion (foments an inclusive model that respects diversity); training in values such as solidarity, tolerance, discipline, self-confidence, personal growth, etc., all of these aspects of physical activity contribute to improving the lives of our citizens.

It is important, therefore, that everyone has access to physical activity and especially that children enjoy good experiences related to physical activity and sport, to strengthen their long-term commitment to sport (Telama et al, 2005).

The worldwide situation of aging populations is becoming one of the challenges for governments for future decades (Maffei et al, 2020). The over 65 age group is an important sector in all countries, especially in more developed countries. The population pyramid in Spain is still aging in terms of an increased proportion of over 65s.

According to INE data from January 2018, there are 8,908,151 over 65s, which is 19.1% of the population of Spain (46,722,980). The average age of the population, which is another way to measure this process, is 43.1; in 1970 it was 32.7. According to the INE projection (2018-2068), in 2068 there could be over 14 million over 65s, 29.4% of a population that would have reached 48,531,614 inhabitants (Abellán et al, 2019).

Moderate or intense exercise is not among the frequent habits of the over 65s in Spain (Boente-Antela, Leirós-Rodríguez and García-Soidán, 2020), therefore, the State, the Autonomous Communities and the Town Halls should offer physical exercise programs that attend to the needs, motivations and expectations of this collective. Similarly, physical activity and health professionals should transmit a life philosophy based on regular physical activity and sport.
Physical activity generates an endless amount of health benefits for people of all ages, which is why we should develop strategic plans and actions directed towards full participation in sport and physical activity in general for all ages, creating programs adapted to each segment of the population. This strategic plan is based on 4 objectives and their corresponding outcomes, for reasons of space we will only expand on the objectives:

a) Introduce a program of after-school activities in the state primary schools for children of 6-11 years old with at least 3 different activities per school year so that they begin to practice sport at an early age (school age).

b) Develop a program for adolescents and young adults (12-30 years old) with at least 3 activities per year and with at least 60% of the participants coming from the local secondary schools (IES).

c) Develop a health focussed program for the over 65s with different physical exercises and with the participants being challenged to reach certain goals each quarter (with evaluations). This program will be called “your health, our challenge”.

d) Introduce physical activity into the workplace (town hall civil servants) with at least 2 days of activities per year and with at least 40 employees participating on each of these days (healthy habits program).

Construct, repair and maintain sports equipment

Sport is no longer a minority activity, it was previously mainly practised by school age children and competition level adults but is now practiced by all population groups. Alongside the growth in people practicing sport there has been a significant increase in the number and types of activities practiced. New sports or variants of existing ones have emerged and some minority sports have become more popular. Concurrently, certain physical activities have been developed that, although they still are not included among institutionalised and regulated sport, have attracted a considerable number of followers. Accordingly, we can say that sport is a growing phenomenon and, consequently, sport infrastructure planning should be capable of adapting to this characteristic. Public authorities should also be open to new tendencies and respond to the innovative and mobile spirit that is inherent to sport.

A great number of sports have to share facilities with other sports due to space and technical reasons, leading to multi-sport centres. Sports centres should respond to sport demand and supply.

Town halls have skills in sports activities and facilities, therefore public authorities should improve the equipment and services they offer to the public and look for new formulas to encourage and develop sport and guarantee the construction and maintenance of new sports facilities. Alongside the construction of new facilities they should look after their maintenance. The maintenance of a sports facility is designed to ensure optimum conditions for the activities in question. The management plan for maintenance should establish the jobs, monitoring and controls for 2 types of maintenance (preventative and corrective), deciding what should be done by external contractors and what should be done by internal staff.

Town halls should also guarantee the accessibility of their sports facilities (Karusisi et al, 2013). Municipal sports departments should provide access to quality sports provisions without barriers for participants and their companions and/or spectators. They should also maintain their sustainability according to the values of the town hall. The correct maintenance of the existing facilities and their adaptation to the parameters of efficient energy use, accessibility etc., should ensure their quality and durability and these investments should take priority over new installations.
Sports tourism, communication and events
Sports tourism is a growing segment that has been evolving very positively in recent years. The special climatic conditions in El Campello and the fact that it is a coastal town with a beach facilitate nautical sports and schools which, along with the various outdoor sports events, reinforce the appeal of El Campello as a sports tourism destination (Fernández-Rodríguez, 2020).

Among other aims, the town hall of El Campello aims to support the socio-economic development of the town, as well as to promote it as an all-year-round tourist destination, favouring the rejuvenation of commercial establishments, hotels, restaurants, etc. To this end they promote and incentivise different events of general interest that, due to their reach, generate important synergies for the town. Among the events organised around tourism are sports events which, given the previously mentioned climatic conditions of the town, can be held all year round, allowing the desired move away from seasonal tourism.

Sports events can have positive effects on not only the image of the town but also on the population’s desire to participate in sport, meaning that sports events are a key factor in physical activity and sport (Mello et al, 2020). El Campello intends to become a reference point for sports tourism and to benefit from the impact of sports events and sports tourism related actions (Higham, 1999).

To this end there will be a series of actions to strengthen the town’s position as a reference point for seasonal training for sportspersons, for example foreign clubs practicing their sport in the town. All of these sports activities and events will be publicised through new technologies and social media to gain impact and visibility (Gregory and Monaco, 2019).

For the execution of this strategic plan the following 4 objectives have to be met:

a) Collaborations with foreign sports clubs to strengthen the name and image of the town and create possible exchange programs with local clubs.

b) Elaboration and implementation of a dynamic web page within 2 years, with a sports calendar including the activities and events organised by the town hall. This will be constantly updated and advertised on social media and other channels.

c) Increase the number of followers on social media.

d) Encourage sport through promotional campaigns and 2 annual macro-events.

Clubs and elite sport
Sports associations represent the largest associative fabric of our society. This potential should be utilised so that people can actively participate in the management of their sports activities. Town halls should work to establish diversified non-profit sectors that contribute towards channelling and satisfying the heterogeneous and numerous sport demand.

Alongside official competitive clubs other types of associations should be promoted, aimed at training, education and socialising, especially in places people use daily such as schools, community centres and companies that are focussed on community (Doherty, Misener and Cuskelly, 2014).

Attention also has to be given to elite level sport, in situations where a local citizen or club reaches that level. Elite level sport is important as it is an essential factor of sports development due to the stimulus it gives, to the technical and scientific demands of its preparation, and to its national representation in official international competitions. It is also important from the point of view of sports tourism.
Elite level competitive sport not only encourages the development of the different sports disciplines and inspires people to do sports, but it is also a social phenomenon that mobilises millions of people, an element of socialisation, a vehicle for international relations, a phenomenon with models of good behaviour and a way of life for sportspeople. Local administrations should collaborate with national directives and general measures designed to alleviate the inherent deficiencies in elite level sport, rewarding clean sport (Green and Houlihan, 2005).

This strategic line is based on 3 objectives and their corresponding outcomes, for reasons of space we will only expand on the objectives:

a) Endorse annual agreements or sponsorships of all the local clubs that foment sport and increase the corresponding budget.

b) Increase the financial sponsorship for local elite level sportspeople and make annual increases.

c) Organise a “Sports Gala” in recognition of local sports club every 2 years.

CONCLUSION

Strategic management tools are useful to understand what are the priorities and objectives of public administrations in terms of physical activity and sport. Some of the key ideas of this work that can be extrapolated to other sports departments of public administrations are: universality of sport, in that it should be for everyone for reasons of health, wellbeing, quality of life and its contribution to good habits; transversality and collaboration, with other town hall departments, with other public bodies, with the health system, with education officials and teachers; accessible sport and physical activity facilities; support for sports associations and elite level sportspeople due to their importance as diffusors of sport participation; promotion of sports events and sport tourism, both of which contribute economically and socially to improving the environment; active listening and new technologies (such as social media) to connect and spread sport supply and demand; sustainability of the facilities and of sport participation.

Among the strategic lines presented here we want to highlight that of converting the town into a reference point of sports tourism and sports events. Collaborating with other town hall departments is key for this aspect but it is worth the effort as it is a sustainable type of tourism with a future, one that stimulates the economy at the same time as encouraging healthy habits and participation in sports.

AUTHOR CONTRIBUTIONS

Mar Soler-Tonda conceptualized the study and obtained the data for it. Reyes González wrote the paper. José Luis Gascó and Juan Llopis analysed and interpreted the data. All authors reviewed and approved the final manuscript.

SUPPORTING AGENCIES

No funding agencies were reported by the authors.

DISCLOSURE STATEMENT

No potential conflict of interest were reported by the authors.
REFERENCES


This work is licensed under a Attribution-NonCommercial-ShareAlike 4.0 International (CC BY-NC-SA 4.0).