SECONDARY TRAUMATIZATION IN HEALTHCARE PROFESSIONS:  
A CONTINUUM ON COMPASSION FATIGUE, 
VICARIOUS TRAUMA AND BURNOUT

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Secondary traumatization has implications for healthcare professionals and the quality of care, this construct including compassion fatigue, vicarious trauma, and burnout, but they are distinct different constructs. The aim of this review is to examine the psychological factors that characterize the domains of secondary traumatization, differentiating them from compassion fatigue, vicarious trauma and burnout in healthcare professionals. We identified eligible papers, a systematic literature search on PubMed has been performed, 681 publications have been found, the total number of relevant publications was reduced to 18. According to the examined literature, this situation may be highly distressing for healthcare assistants, and entails a series of negative consequences. This review suggested that healthcare professionals are at risk of secondary traumatization, for the impact of personal distress, and a variety of stressful factors and negative affect promote this condition. The distress that results from dissatisfaction, and is associated with negative cognitions and negative mood. Finally, the psychological variables of the quality of professional life identified by scientific literature are eight and include: compassion satisfaction and fatigue, burnout, distress, self-compassion, psychological inflexibility, empathy, ability to take another people’s perspective.

Key words: secondary traumatization, compassion fatigue, vicarious trauma, burnout, healthcare professionals

INTRODUCTION

In the last decade, the topics of secondary traumatization, psychological vulnerability, compassion fatigue, vicarious trauma, and burnout in healthcare professions have been matter of research for several authors (Gerard, 2017; Hubbard et al., 2015; Mento et al., 2016, 2019; Nolte et al., 2017; Perregrini, 2019; Sansó et al., 2015). Empathetic caring, and interpersonal skills are the core of healthcare workers, in fact according to literature the experience of compassionate connection can be translated into compassion satisfaction (CS): sharing the patient’s suffering can in fact be a vehicle of inspiration and self-achievement for the professional (Boyle, 2015; Chen et al., 2018; Hannah & Woolgar,
Compassion requires an inner conviction and resiliency that sends the message, “I see and feel your pain,” this is characterized by the desire to relieve the patient’s suffering. The resulting gratification also contributes to job satisfaction and to set a positive work environment (Chen et al., 2018). Self compassion is linked to positive psychological characteristics, such as emotional intelligence, empathy, altruism and psychological flexibility (Boyle, 2015; Cocker & Joss, 2016). This aspect is the healthcare worker’s ability to connect and embrace the experience lived by patient (Gerard, 2017). The empathy plays a key role in this situation, empathy, in fact, is the attitude of to take care of the pain of others; is the ability to perceive their suffering, their sadness, their pain, while remaining aware of the distinction between themselves and the patient. Neuroscience studies have associated empathy with the anterior bilateral insular cortex and anterior medial cingulate cortex, areas that are activated when the subject experiences direct pain (Settineri et al., 2014). If the healthcare professionals is unable to differentiate their feelings, from their patients, these can take inappropriate characteristics that can lead to excessive empathy, which is characterized by ties and confused roles, and exposure to suffering, and distress. The distress that results from dissatisfaction, and is associated with negative cognitions and negative mood, this condition gives rise to the risk of secondary traumatization (Hannah & Woolgar, 2018; Mento et al., 2016; Settineri et al., 2018).

The Secondary Traumatization (ST) is a natural consequence within the process of care between two people, in which one was exposed to the trauma of other people’s suffering, while the other was the first to experience the traumatic experience (Hunt et al., 2019). The symptoms of ST is similar to Post Traumatic Stress Disorder (PTSD), such as intrusive, avoidance and iperarousal symptoms, depressive and anxious symptoms (Seemann et al., 2019).

Specifically, for Secondary traumatization (ST), psychological and interpersonal styles have been identified as risk factors, such as cynicism, pessimism and unrealistic expectations of oneself, together with a personal traumatic history and the very meaning that is attributed to the event. According to Figley (1995), the secondary trauma is characterised by tension and preoccupation with the suffering of patients, and is similar to posttraumatic stress disorder (PTSD) in fact include high arousal, intrusive thoughts or images, and reminders of the person’s traumatic experiences (Figley, 1995; Stamm, 2002; Weintraub et al., 2016).

Another term to define the construct in question is that of Vicarious Trauma (VT), which somehow takes up and expands the ST itself, as does not limit itself to transferring trauma-related symptoms among those who have experienced it firsthand and those taken care of, but also includes alterations of the belief system and subsequent way of seeing the world (Greinacher et al., 2019).

VT is defined as a transfer process that occurs between therapists or other workers, as a result of an empathic relationship with the patient’s traumatic experience.

The secondary traumatization (ST) is similar to compassion fatigue with regard to the psychological symptoms of the caregiver linked to an empathic alteration, but it is usually referred to acute reactions that occur in a short period (Grant et al., 2019;
Greinacher et al., 2019; Kolthoff & Hickman, 2017).

ST is different from compassion fatigue, in fact, compassion fatigue (CF) derives more specifically of direct exposure to patient care, while the ST mainly originates from traumatic experiences or exposure to traumatic facts in both cases experienced by other people. CF is characterized by a spiritual, emotional and physical exhaustion, with little interest by the clinician in being empathic, often due to prolonged exposure to the suffering of others (Cross, 2019; Mento et al., 2019).

The literature described the concept of compassion fatigue, as the progressive, cumulative, continuous, intense, and stressful contact with patients, leading to a compassion discomfort that exceeds healthcare work’s endurance levels (Gerard, 2017; Van Mol et al., 2015; Zhang et al., 2018). Compassion fatigue is a state that the compassionate energy becomes a state of physical and mental exhaustion, characterize by sadness, apathy, cynicism, oversensitivity, frustration/irritation, depression, anxiety, blaming/judgmental, mood swings, lack of joyfulness, poor concentration, memory impairment, loneliness, job dissatisfaction, chronic fatigue, exhaustion, insomnia and pain; the negative consequences of this condition heavily affect the delivery of healthcare services, calling upon the quality of care (Boyle, 2015; Coetzee & Laschinger, 2018; Figley, 1995). The concept of compassion fatigue are similar to burnout, but they are different constructs (Zhang et al., 2018).

According to literature compassion fatigue (CF) is differs from the burnout (BO), even though the two terms may be used interchangeably. The burnout is associated with stressors present in the work environment, such as longer shifts, conflicts with colleagues, lack of personnel and consequent increase in workload (Schmidt & Haglund, 2017). The burnout occurs as a result of prolonged exposure to stressful interpersonal situations, and is characterised by emotional and physical exhaustion, job dissatisfaction (Maslach et al., 2001; Mento et al., 2020). The cumulative effects of compassion can therefore lead to secondary traumatization: those who work with traumatized subjects can have intense and painful emotional reactions which interact with factors that affect the personal characteristics of the subject himself and external stressors, such as patient satisfaction, their presence numerous and all organizational objectives (Hubbard et al., 2015; Shahar et al., 2019). The symptoms experienced by healthcare professionals significantly affect work significance, functioning, since high levels emotional exhaustion, cynicism, and low perceived professional efficacy are related to poor occupational satisfaction and performance, the general consequences seem to be a reduced quality of life (Bell et al., 2019; Hannah & Woolgar, 2018; Hotchkiss & Lesher, 2018; Hunt et al., 2019). Furthermore, several studies showed that many healthcare workers utilize somatic defenses mechanism such as headache, stomachache, insomnia, tachycardia, tiredness, enuresis, and these somatic manifestations can predisposing for chronic somatic disorders, are creating significant distressingly both physically and psychologically (Monetti, 2014; Payne et al., 2015; Pokroy et al., 1999). The psychological variables of the quality of professional life identified by Duarte and Pinto-Gouveia (2017), are eight and include: compassion satisfaction and fatigue, burnout, distress, self-compassion, psychological inflexibility, empathy, ability to take another people’s perspective.
Table 1. List of Search Terms Entered Into the PubMed Search Engines for Identification the Studies for This Systematic Review

| Number | Search term                                      |
|-------|-------------------------------------------------|
| 1     | COMPASSION FATIGUE [all fields]                 |
| 2     | VICARIOUS TRAUMA [all fields]                   |
| 3     | SECONDARY TRAUMA [all fields]                   |
| 4     | BURNOUT [all fields]                            |
| 5     | 1 OR 2 OR 3 AND 4                               |
| 7     | English [language]                              |
| 10    | 2014/01/01 to 2019/01/31 [publication date]     |

**Method**

**Research Strategy**

This systematic review was conducted according to Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) guidelines (Moher et al., 2009). PubMed database was searched from January 1, 2014 to January 1, 2019, we used the following search terms and logic: “Secondary Trauma” OR “Vicarious Trauma” OR “Compassion fatigue” AND “Burnout,” in order to identify relevant literature published since 2014.

The electronic search strategy used for PubMed is described in Table 1.

Articles have been selected by title and abstract; the entire article was read if title/abstract was related to the specific issue of “Secondary traumatization in health care Professionals: A continuum on Compassion fatigue, Vicarious trauma and Burnout,” and if the article potentially met the inclusion criteria. References of the selected articles were also examined in order to identify additional studies meeting the inclusion criteria.

**Study Selection**

Articles were included in the review according to the following inclusion criteria: English language, publication in peer reviewed journals, quantitative information on workplace violence against healthcare workers, and year of publication at least 2014. Articles were excluded by title, abstract, or full text for “Secondary traumatization in health care Professionals: A continuum on Compassion fatigue, Vicarious trauma and Burnout,” and for irrelevance to the topic in question. Further exclusion criteria were review articles, editorial comments, and case reports/series. Further-more, we arbitrarily decided to start our research from 2014 to give a more recent view of “Secondary traumatization in health care Professionals: A continuum on Compassion fatigue, Vicarious trauma and Burnout” findings.

Following this procedure, we found 681 publications and after applying the selection criteria, the total number of relevant publications fell to 18.

Fig. 1 shows the process diagram followed to select the included studies.

**Results**

This review investigated the impact of secondary traumatization, compassion fatigue, vicarious trauma, and Burnout in healthcare professionals, and this situation is associated with negative consequences in healthcare workers, such as increase in anxiety,
anger, depression, guilty and a bad psychological impact on their lives. We showed that these conditions are similar, but they are different, and make up a continuum. An important intervention is a preventive approach for to manage workplace stress and improve well-being in healthcare. A relevant study explored the compassion fatigue, burnout experience in mental health professionals (Bell et al., 2019). Chen and colleagues (2018) explored the association between, compassion satisfaction and fatigue.
Table 2. Characteristic of Studies Included in the Review

| References (Author, place) | Aims | Group characteristics | Type of measurements |
|----------------------------|------|-----------------------|----------------------|
| Bell et al. (2019)         | This study explored the compassion fatigue, burnout experience in mental health professionals. | 36 mental health professionals. | -A self-report questionnaire consisted of three sections that related to information on the demographic and professional background of participants, exposure to traumatic events, organisational support, and burnout, compassion satisfaction and compassion fatigue. -Professional Quality of Life Scale (ProQOL). |
| Chen et al. (2018)         | The aim of this study was to explored the level of and the association between, compassion satisfaction and fatigue of paediatric nurses; and to describe the personality traits and the level of compassion satisfaction and fatigue of participants. | 173 female pediatric nurses. | The authors used three instruments: -measuring socio-demography. -responses to the compassion satisfaction fatigue test. -the revised NEO personality inventory. |
| Duarte and Pinto-Gouveia (2017) | This study explored the role of several psychological factors in professional quality of life in nurses. | 221 oncology nurses. | -Professional quality of life scale version 5. -Interpersonal reactivity index: this scale measures perspective taking. -Self compassion scale: this scale measures components of self compassion. -Acceptance and action questionnaire measures the psychological inflexibility. |
| Ghazanfar et al. (2018)    | The purpose of this study is to determine the prevalence and risk factors of compassion satisfaction, compassion fatigue, and burnout among cardiac physicians. | 50 cardiac physicians working in tertiary care cardiac hospitals in Pakistan. | -Professional Quality of Life Scale (ProQOL-5). |
Hannah and Woolgar (2018) This study aims to confirm the proof of concept within foster carers and to explore the potential risks associated with intent to continue fostering, overall job satisfaction and psychological factors (avoidant coping) that could be targets for interventions. 131 foster carers. -The Professional Quality of Life (ProQoL). -The Secondary Trauma Stress Scale (STSS). -The Acceptance and Action Questionnaire–II (AAQ-II). -The White Bear Suppression Inventory (WBSI).

Hotchkiss and Lesher (2018) This study predicted Burnout from the self-care practices, compassion satisfaction, secondary traumatic stress. 5,361 chaplains affiliated with the Association of Professional Chaplains (APC). -Demographics gathered in the survey were age, gender, ethnicity, and highest education attained. -Mindful Self-Care Scale (MSCS). -Professional Quality of Life (ProQOL).

Hunt et al. (2019) The aim of this study is to examine the relationship of empathy and professional quality of life in cancer healthcare professionals. 117 healthcare professionals working in cancer care. -Professional Quality of Life (ProQOL). -Interpersonal Reactivity Index.

Kindermann et al. (2017) This study aimed to analyze the prevalence rates of primary traumatization in interpreters, to assess the prevalence of secondary traumatization, depression, anxiety, and stress symptoms, to examine the association between secondary traumatization symptoms and resilience factors in terms of sense of coherence, social support, and attachment style, and to test whether these resilience factors mediate the relationship between primary and secondary traumatization. 64 participants (36 women, and 28 men). -Sociodemographic Data. -Essen Trauma Inventory: this instrument allows for a diagnostic classification both of PTSD and of acute stress disorder according to the diagnostic criteria of the DSM-IV. -Questionnaire for Secondary Traumatization: this questionnaire comprises 31 questions on the symptomatology of secondary traumatization. -Patient Health Questionnaire: to assess depression. -Generalized Anxiety Disorder Scale. -The Perceived Stress Scale: to assess the level of perceived stress. -The Sense of Coherence Scale: to measure the sense of coherence. -Social Support Questionnaire. -Relationship Questionnaire: to assess attachment style.
| Reference          | Description                                                                 | Participants                                      | Instruments                                                                 |
|--------------------|-----------------------------------------------------------------------------|--------------------------------------------------|-----------------------------------------------------------------------------|
| Klein et al. (2018) | This study aimed to explore quality of Life and Compassion Satisfaction in Clinicians. | 18 healthcare professionals from an inpatient palliative care department. | Professional Quality of Life (ProQOL).                                       |
| Kolthoff and Hickman (2017) | The aim of this study is to describe compassion fatigue, burnout, and compassion satisfaction in nurses caring for high needs older adults. | 42 nurses. | Professional Quality of Life 5 scale.                                        |
| Mento et al. (2019) | The aim of this study is to identify the sociodemographic characteristics and the psychological motivations of caregivers who request a support, in terms of gender, age, occupation, type of recipient pathology, perceived burden and experienced emotions. | Two hundred ninety-three caregivers. | Questionnaire for Caregivers. The Italian version of Caregiver Burden Inventory (CBI) is a 24-item multi-dimensional questionnaire measuring caregiver burden. |
| Munger et al. (2015) | The purpose of this study was to explore vicarious trauma. | 2,000 nurses. | Professional quality of life scale.                                          |
| Sansó et al. (2015) | The aim of this study was to explore the factors associated with professionals’ inner life, through the assessment of an adapted version of Kearney and Kearney’s awareness model of self-care. | 387 professionals. | Coping with Death Scale. Mindful Attention Awareness Scale. The Professional Quality of Life Scale. |
| Seemann et al. (2019) | The aim of this study was to examine the prevalence and impact of compassion fatigue in surgical trainees with a view to inform a management strategy. | 99 students University of Toronto. | Professional quality of life scale version 5, is an instrument to access Compassion Fatigue (CF). This inventory has subscales for 3 components of CF: compassion satisfaction, burnout, and secondary trauma stress. |
| Settineri et al. (2014) | This study had as its subject the burden of caregivers and their quality of life involved in helping patients with diseases (1) physical, (2) mental and (3) both pathological conditions. | 294 caregivers. | An informative questionnaire. The Caregiver Burden Inventory (CBI): measuring caregiver burden. The Quality of Life Index (QoL -I): is a general QoL index that covers five dimensions: activity, daily living, health, support of family and friends, and outlook. |
| Reference                  | Description                                                                 | Number of Participants | Key Tools/Measures                              |
|----------------------------|------------------------------------------------------------------------------|------------------------|-----------------------------------------------|
| Shahar et al. (2019)       | In this study the authors explored the level of compassion fatigue among nurses working in a long-term care facility, as well as the associated sociodemographic and occupational factors. | 103                     | Professional Quality of Life Scale R-IV.     |
| Yi, Kim, Choi, et al. (2018) | The purpose of this study was to understand the experience of compassion fatigue. | 27 pediatric oncology social workers. | The focus group semi-structured interview questions addressed participants’ perceptions of the causes of compassion fatigue, how it affected the participants, and how they dealt with it. |
| Weintraub et al. (2016)    | The objectives of this study were to determine the prevalence of CF, BO and CS, and to identify potential predictors for these phenomena in neonatologists. | 593 neonatologists in the US. | -The Compassion Fatigue and Satisfaction Self-Test for Helpers (CFST). |
of paediatric nurses; and described the personality traits and the level of compassion satisfaction and fatigue of participants. Duarte and Pinto-Gouveia (2017) explored the role of several psychological factors in professional quality of life in healthcare professionals. Ghazanfar et al. (2018) described the prevalence and risk factors of compassion satisfaction, compassion fatigue, and burnout among cardiac physicians. Hannah and Woolgar (2018) explored the secondary trauma and Compassion fatigue in foster carers. Hotchkiss and Lesher (2018) predicted Burnout from the self-care practices, compassion satisfaction, secondary traumatic stress. Hunt et al. (2019) examined the relationship of empathy and professional quality of life in cancer healthcare professionals. Yi, Kim, Choi, et al. (2018) described the experience of compassion fatigue. Kindermann et al. (2017) analyzed the prevalence rates of primary traumatization in interpreters, and examined the association between secondary traumatization symptoms and resilience factors in terms of sense of coherence, social support, and attachment style, and to test whether these resilience factors mediate the relationship between primary and secondary traumatization. Klein et al. (2018) explored quality of Life and Compassion Satisfaction in Clinicians. Kolthoff and Hickman (2017) described compassion fatigue, burnout, and compassion satisfaction in nurses caring for high needs older adults. Mento et al. (2019) identified the sociodemographic characteristics and the psychological motivations of caregivers who request a support, in terms of gender, age, occupation, type of recipient pathology, perceived burden and experienced emotions.

Munger et al. (2015) explored vicarious trauma. Sansó et al. (2015) explored the factors associated with professionals’ inner life, through the assessment of an adapted version of Kearney and Kearney’s awareness model of self-care. Seemann et al. (2019) examined the prevalence and uimpact of compassion fatigue in surgical trainees with a view to inform a management strategy. Settineri et al. (2014) described the burden of caregivers and their quality of life. Shahar et al. (2019) explored the level of compassion fatigue among healthcare professionals. Weintraub et al. (2016) determined the prevalence of CF, BO and CS, and to identify potential predictors for these phenomena in neonatologists.

**Discussion**

Most of the research conducted until today was focused on the effects of the exposure to secondary traumatization, compassion fatigue and vicarious trauma, but often the terms used in way interchangeably (Salmond et al., 2019; Seemann et al., 2019; Kindermann et al., 2017; Yi, Kim, Akter, et al., 2018).

Healthcare professionals, particularly those working in the oncology field, are at great risk of developing compassion fatigue (CF), since they are constant witnesses of intense suffering and pain (Coetzee & Laschinger, 2018; Settineri et al., 2014). Moreover, listening to description of catastrophic events, such as the testimony of the cruelty suffered and traumatic re-enactments, such as in Japan, with the earthquake disaster of 2011, where more than 16,000 people were died, is very stressful for
healthcare workers (Kawai, 2014). On the basis of what has resulted from a study is possible to summarize within a diagram the domains that constitute the quality of professional life, which could be placed along a hypothetical continuum that, on the contrary of what previously described, from compassion fatigue (CF), vicarious trauma (VT) and Burnout (BO) can lead to secondary traumatization. CF in fact according to what reported, would represent one of the two opposite dimensions of the quality of the professional life of the individual, evaluated with ProQOL, which however are also closely related (Boyle, 2015; Chen et al., 2018; Grant et al., 2019; Kindermann et al., 2017; Mento et al., 2019; Peters, 2018). There are several triggers of secondary traumatization which are followed by consequences that have an impact on the different domains of professional and personal life. Among the antecedents is possible to include, in addition to long-term exposure to suffering and pain that can lead to high levels of stress, lack of support both in workplace and in the family, the absence of self-care measures, along with an inability to maintain the right professional boundaries. Also, is possible that the individual devotes much time and many personal resources to his work: this, together with compassion, represents another trigger of CF (Duarte & Pinto-Gouveia, 2017).

The resulting consequences manifest themselves at various levels: increased errors in the workplace, reduced quality of care provided and poor performance, with extreme fatigue and multiple physical complaints, such as gastrointestinal disorders, headache, sleep disorders and weight gain. Job dissatisfaction with expressed frustration with regard to care services to be performed can be expressed with an increased staff turnover (Yi, Kim, Akter, et al., 2018). Emotional effects include a decrease in enthusiasm, depression, desensitization, irritability and a feeling of emotional overwhelm, along with a loss of ability to enjoy life (Wentzel, 2017; Isobel & Angus-Leppan, 2018). Somatic effects include a headache, stomacache, insomnia, tachycardia, tiredness, enuresis, and these somatic manifestations can predisposing for chronic somatic disorders, are creating significant distressingly both physically and psychologically (Monetti, 2014; Payne et al., 2015; Pokroy et al., 1999). On the contrary, protective factors are represented by coping skills which include supportive research, the ability to cope with stress, mindfulness and resilience. Following the chronological order, is possible to identify in exposure, vulnerability and empathy the three key concepts that can lead to the development of ST and therefore to emotional, behavioral and cognitive reactions (Ghazanfar et al., 2018). As previously mentioned, the quality of professional life includes two domains, the first is represented by compassion satisfaction, while the second includes compassion fatigue and also burnout (Chen et al., 2018; Greinacher et al., 2019; Houck, 2014; Munger et al., 2015; Perregrini, 2019; Shahar et al., 2019; Seemann et al., 2019). Resilience intervention is a preventive approach to improve skills for management this situation, improving health and well-being and preventing adverse outcomes associated with occupational stressors. An example of resilience intervention is preventive approach to improve skills and occupational stressors for addressing stressful. The possible programs include resilience, mindfulness, self-care, support, awareness and education interventions to be implemented continuously (Cross, 2019; Hunt et al., 2019; Klein et al., 2018; Van
Mol et al., 2015). Finally, in this situation, treatment efficacy encompasses psychological therapies for to management negative emotions of professionals. The central goal of psychological therapy is to help professionals better handle problems evolved around maladaptive emotions, cognition and behavior, is essential to listen to the operators’ stories, as happened such as and creating a shared listening space was fundamental, to support the operators who work with the families of the victims (Kawai, 2014).

**Conclusions**

The psychological variables involved in the quality of working life have been identified, as well as the risk and protective factors that can lead to the development of secondary traumatization. The preventive measures for healthcare professional is important, and include interventions based on self-care, self-awareness and self-reflection. Is important to assess healthcare workers at risk of stress, and presence of compassion fatigue for the prevention, before it involves in burnout. Through well-structured programs is possible to increase psychological factors that include self-efficacy, optimism, hope and resilience, which together with a greater knowledge of the characteristics of compassion fatigue, represent factors of protection against the same. Specifically, the reflective supervision plays a role of primary importance, as promotes introspection on one’s own point of view and on that of others with emphasis on empathic response. Listening empathically to other people’s stories allows an open-mindedness and to take on new perspectives about the situations that patients live. This type of intervention aims at increasing emotional regulation skills, positive support, empathy, adequate distancing from patient experiences and building resilience through the attribution of meaning to events. It is necessary to implement prevention interventions in the target population of psychological stress-jobs, including the creation of a supportive working environment for the purposes of adequate fulfillment of the tasks envisaged and the reduction not only of absenteeism but also of errors committed. This will favour an adequate interaction with the patient and his relatives, towards which the nurse will be able to show an empathic behaviour, capable of embracing the suffering of others while maintaining the necessary detachment.

**Author’s Contribution**

M.C. and Z.R.A. contributed to conception of the research design. M.P. and N.V. conducted the literature research. M.C. and S.M.C. first wrote the manuscript. T.K., B.A. and M.M.R.A. revised the manuscript. All the authors confirmed its final version.
CONFLICT OF INTERESTS

The author(s) declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

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