INTRODUCTION

War is a worldwide health threat. In 1990, war resulted in 502,000 deaths worldwide, constituting almost 1% of all deaths. However, military medicine is one of the oldest fields of medicine and it has been claimed that many important clinical advances are due to the observations, ingenuity, and technical innovations of doctors during wartime. For example, western surgery was developed in Greece, as reported in the Homeric poems The Iliad and The Odyssey, in which gods of medicine were militarists. The famous French surgeon Ambroise Paré was said to be worth the equivalent of 10,000 soldiers on the battlefield, as soldiers knew that their chances of survival were greater if he was present. The battle of Solferino inspired Henri Dunant to write "A Memory of Solferino". This publication was followed by the signing of the first Geneva "Convention to Ameliorate the Condition of the Sick and Wounded in Wartime", which rapidly became the charter for several 'National societies to aid the sick and wounded in wartime' that later became known as Red Cross societies. The First World War could be viewed as a giant field trial for medical science. Many medical advancements including the treatment of wounds, sanitation, orthopedic innovations, X-rays, reconstructive surgery and blood transfusions were a consequence of the Great War. Furthermore, symptoms of acute respiratory distress syndrome were first described during World War I and military physicians provided a major impetus for advances in modern mechanical ventilation and intensive care unit medicine. Therefore, we hypothesized that public interest in medicine increased during wartime. To test this hypothesis, we analyzed articles from the Croatian weekly news magazine "Ilustrovani list". The first issue was published on January 3rd 1914 in Zagreb, the capital of the Kingdom of Croatia, Slavonia and Dalmatia. The Kingdom was a part of the Austro-Hungarian state and was directly engaged in military operations. It was assumed that a potential increase in the number of medical publications reflected public interest in such topics.

MATERIALS AND METHODS

Ilustrovani list was an illustrated Croatian weekly news magazine "Ilustrovani List”, a Croatian Magazine

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ABSTRACT

The aim of the current study was to investigate the impact of World War I on public interest in medical topics, as reflected by the contents of a Croatian magazine. Sixty issues (30 before and 30 after the declaration of war) of the Croatian weekly news magazine "Ilustrovani list" were analyzed, and the number of pages dedicated to medical topics was calculated. The results demonstrate that the number of medical articles increased substantially after the war began. The total number of pages concerning medical issues was seven times greater during wartime than before war broke out \((P < 0.001)\). We conclude that on the basis of publications in a news magazine, public interest in medical-related subjects increased during World War I. The potential impact of this finding on health-related policies and biomedical research of that era requires further exploration. IJHM. Int. 2010; 1: 4-6. ©2010 Int J Hist Philos Med, Inc.

Key Words: Croatia, History, Medicine, Military, World War I
magazine published in Zagreb from 1914 until 1918. It targeted bourgeois readers from Zagreb and other Croatian parts of the Monarchy. The original issues are held in the Croatian National and University Library and in Zagreb City Libraries, where the present study was carried out. Each issue contained 24 pages and the editorial board did not alter during the studied period. We analyzed 60 issues, 30 published before the declaration of war and 30 published after the onset of the war, and counted the number of pages related to medical topics (civil and military). Four individuals analyzed the contents of each article. If three of these individuals agreed that the article concerned medicine during wartime, as the content discussed subjects including the treatment of wounded soldiers in hospitals, Red Cross hospitals or voluntary nurses, it was classed as a military medicine article. Other medical topics such as public health and home-made medicines/remedies were classed as civil medicine articles. A minimum of one page out of 20 was dedicated to medical articles within each issue. The paired t test was used to test our hypothesis.

RESULTS

The data presented in Table 1 demonstrate that the number of pages dedicated to medical topics was seven times greater during war time than before the war (Figure 1).

Table 1. Average numbers of pages dedicated to medical matters per issue

<table>
<thead>
<tr>
<th></th>
<th>Civil medicine</th>
<th>Military medicine</th>
<th>Medicine, total&lt;sup&gt;c&lt;/sup&gt;</th>
</tr>
</thead>
<tbody>
<tr>
<td>Before WW1</td>
<td>0.3 ± 0.5 (0 – 1.6)</td>
<td>-</td>
<td>0.3 ± 0.5 (0 – 1.6)</td>
</tr>
<tr>
<td>WW1&lt;sup&gt;b&lt;/sup&gt;</td>
<td>0.4 ± 0.4 (0 – 0.6)</td>
<td>0.9 ± 1.4&lt;sup&gt;d&lt;/sup&gt; (0 – 5.4)</td>
<td>2.3 ± 1.3&lt;sup&gt;d&lt;/sup&gt; (0.4 – 5.9)</td>
</tr>
</tbody>
</table>

Note data are presented as mean ± standard deviation (range).

<sup>a</sup>30 issues before WW1 had started; shown are mean ± standard deviation

<sup>b</sup>30 issue after WW1 had started; shown are mean ± standard deviation

<sup>c</sup>Civil + military

<sup>d</sup>Statistically significant difference in comparison with the pre-war period (P < 0.001, paired t-test).

No articles relating to military medicine were published before World War I. The increase in medical publications during the war was predominantly due to military medicine articles. However, the number of pages dedicated to civil medicine increased marginally after the outbreak of World War I (P > 0.05).

DISCUSSION

The war started on 28th July 1914<sup>9</sup> but the first military operations on the Serbian front, where Croatian units fought, did not begin until 12th August. The lack of military medical articles in the first three wartime issues of "Ilustrovani list" was probably a consequence of this. Our analysis demonstrated that the increase in the number of articles concerning medical topics in "Ilustrovani list" after World War I began was statistically significant. Croatia was not alone in this regard; see, for example, the recent republication of the diary kept during the First World War by the British medical orderly Travis Hampton, which frequently mentioned effective responses to unprecedented medical demands and brought them to public notice. We conclude that public interest in medicine generally increases during wartime.

Although the findings described in this paper pertain to one popular publication in one country during one war, there are indications that they may be valid in other times and places; public interest in medical matters related to war is still apparent today. For example, there are highly accessed news reports that recent wars have claimed relatively fewer casualties than those of the past, and most war-related deaths result from disease and malnutrition. A recent paper about back pain in war veterans<sup>13</sup> has been reported in a popular online article.<sup>14</sup> The online publication Medical News Today has published several articles about post-traumatic stress disorder and other health issues among American veterans of the Gulf War.<sup>15</sup> These and many other popular recent publications, mostly online, illustrate the continuing public interest in medical matters related to warfare throughout the world.

It could be suggested that this increased public interest facilitated medical advances during World War I and has done so in subsequent wars. It would be inappropriate to infer that medical knowledge acquired during wars is worth the cost to human life, and lessons should be learned to prevent repetition. In order to fulfill this requirement, the past should be studied and lessons incorporated into future actions.<sup>16</sup>

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