The Historical Development of Academic Journals in Occupational Medicine, 1901–2009

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ABSTRACT. Academic journals in a specialist field provide an interesting historical record of its development and progression over time. This article describes the evolution of some major international journals of occupational medicine, including some historical background on their editorial board. As North America, the United Kingdom, and Northern Europe are known to have the highest contribution to scientific production, it was considered appropriate to investigate the main occupational medicine periodicals in these regions. Given the remarkable improvements in Japanese occupational health following the Second World War, it was also considered worthwhile to investigate the two English-language journals of occupational medicine from this country.

KEYWORDS: editors, history, journal development, occupational, medicine, publishing

It has been suggested that scientific research is the conscious effort of mankind in keeping with the laws of logic to discover new information about the real world. Origins of the modern scientific periodical can be traced back to the 16th and 17th centuries, by which time early scientists had recognized their dependence on private correspondence to keep abreast of new discoveries. The first, modern scientific journals were established in 1665, as the Journal des Scavans in France and the Philosophical Transactions of the Royal Society in Great Britain. Given that they generally recorded the proceedings of a learned society, many early scientific articles were written as accurate accounts of oral presentations during these meetings. Aside from Britain and France, other countries such as Germany, Russia, and Sweden had also begun following suit by the late 1700s. Within a century, some of the famous medical journals of today began appearing, such as the New England Journal of Medicine in 1812 and the Lancet in 1823. New scientific discoveries in physiology and medicine by the late 19th and early 20th centuries had also led to an increasing need for specialist periodicals, such as the American Journal of Obstetrics, which was founded in 1868 and the British Journal of Surgery, in 1913.

Probably the earliest industrial work undertaken by human beings involved the making of implements for defense and offense, or for obtaining and cooking food. Although manual labor was often performed by slaves, for whom no interest in their welfare was taken, Hippocrates had described breathing difficulties among miners during the 5th century BC. By the Medieval Ages, water power had proliferated and castle construction was involving hundreds of workers in organized labor. Interest in worker’s health evidently occurred in the medical profession, with the publication of occupational medicine research appearing to pre-date specialist medical journals by approximately 200 years. Bernardino Ramazzini (1633–1714) is generally recognized as the founding father of occupational medicine, being the first physician to systematically examine the effect of workplace issues on human health. Ramazzini’s groundbreaking text the De Morbis Artificum Diatriba (Diseases of Workers) appeared in 2 editions, first published in 1700 in Modena, and later in 1713 in Padua, thereby laying foundations for the scientific study...
of occupational medicine as a discipline. His advice to physicians of the day was to ask their patients a number of symptom-related questions, followed by his most famous en-treaty “what occupation does he follow?” Over 100 years later, in 1831, a pioneering British figure known as Charles Thackrah (1795–1833) published his seminal works calling attention to the plight of factory workers.

As we pass through our first decade of the 21st century, interest in occupational medicine continues to grow as the discipline itself rises as a legitimate and independent medical specialty. The body of knowledge in our field has also expanded considerably, given that there were approximately 24,000 articles published in the field of occupational medicine during the 1970s. This figure had risen to 36,000 in the 1980s, and over 53,000 by the 1990s. Academic journals thereby provide a treasure trove of recorded scientific knowledge in the field. Despite this fact, however, no contemporary authors have investigated the historical development of key academic journals in occupational medicine.

The purpose of the current article, therefore, is to provide a historical overview of some core occupational medicine journals, while keeping within the limits of practically available and reliable historical data. Editorial boards are known to exert a major influence on the development of any scientific periodical, and for these reasons, the current article includes significant description on the Editors-in-Chief, their individual careers, and their wider influence on the journals they served. As it has been previously shown that North America, the United Kingdom (UK) and Northern Europe have the highest contribution to scientific production, it was considered appropriate to investigate the main occupational medicine journals published by these 3 key regions: the Journal of Occupational and Environmental Medicine, the American Journal of Industrial Medicine, Occupational and Environmental Medicine, Occupational Medicine (Oxford), La Medicina del Lavoro, the International Archives of Occupational and Environmental Health, and the Scandinavian Journal of Work, Environment & Health. Given that remarkable changes in Japanese occupational medicine occurred during the last century, it was considered appropriate to investigate the main occupational medicine journals published by these 3 key regions: the Journal of Occupational and Environmental Medicine, the American Journal of Industrial Medicine, Occupational and Environmental Medicine, Occupational Medicine (Oxford), La Medicina del Lavoro, the International Archives of Occupational and Environmental Health, and the Scandinavian Journal of Work, Environment & Health. Given that remarkable changes in Japanese occupational medicine occurred during the last century and considering that there are at least 22 occupationally related journals being regularly published in this country, it was also deemed appropriate to investigate its 2 English-language journals of occupational medicine: the Journal of Occupational Health and Industrial Health (Table 1).

JOURNAL OF OCCUPATIONAL AND ENVIRONMENTAL MEDICINE

The early development of US occupational medicine was recorded in various pioneering studies such as McCready’s 1837 monograph on workplace diseases in the dusty trades. Brigham’s 1875 essay on occupational health for the Michigan State Board of Health, and publication of the country’s first industrial hygiene survey by Doehring in 1903. Articles, reports of surveys, and descriptions of disease in the workplace subsequently had began appearing in the American medical literature during the early 20th century, as social protests developed momentum and academic interest gradually turned towards the health of workers. The American Association of Industrial Physicians and Surgeons (AAIPS) was organized in 1915, holding its first meeting in 1916, and later becoming the Industrial Medical Association (IMA). After a long period of steady and solid growth during the first half of the 20th century, the IMA had begun to recognize an increasing need for its own unique voice in occupational health. In 1946 the American Academy of Occupational Medicine (AAOM) was founded. Although it took almost 2 years of work by the editorial committee, the Journal of Occupational Medicine (JOM) was finally launched in 1959 as an official publication of the IMA. Adolph Kamm er (1903–1962) was appointed founding Editor-in-Chief, having previously served as IMA president between 1951 and 1952, as well as being Head of the Department of Occupational Health at the University of Pittsburgh. A pioneering figure in the training of many company doctors, Robert Kehoe, also celebrated the launch of JOM with high hopes for the newly emerging specialty of “occupational medicine.”

By the 1960s, JOM was well-known as a major source of information for the profession, and the IMA had also established its niche in medicine, celebrating a 50-year anniversary in 1966. The academic quality of JOM manuscripts steadily improved throughout this period, with the creation of a “Consulting Editors” board during the mid-1960s being seen as a positive step by many contributors. In 1974 the IMA changed its name to the American Occupational Medical Association (AOMA). Environmental health had also risen in stature alongside occupational medicine, and by the early 1990s there had been increasing calls to recognize the parallels between occupational and environmental medicine as complimentary disciplines. Recognizing this need, the professional societies to which many US industrial physicians belonged, the AOMA and the AAOM, amalgamated in 1988, and later changed their name to the American College of Occupational and Environmental Medicine (ACOEM) in 1992. Interestingly, a JOM editorial from the same year had suggested the discipline consider being renamed Preventive, Occupational, and Environmental Medicine (POEM). Although the POEM moniker was never adopted, the ACOEM did change the name of its official journal (JOM) in 1995, to the Journal of Occupational and Environmental Medicine (JOEM), with Paul Brandt-Rauf being appointed as Editor-in-Chief. In recent years the journal continues to publish as a monthly periodical under this name and remains the official journal of the ACOEM.

AMERICAN JOURNAL OF INDUSTRIAL MEDICINE

The American Journal of Industrial Medicine (AJIM) was founded as a quarterly periodical in 1980 by the Alan R. Liss...
<table>
<thead>
<tr>
<th>Region</th>
<th>Current Title</th>
<th>Founded</th>
<th>Founding Editor</th>
<th>Original Title</th>
<th>Founding Publisher (Country)</th>
</tr>
</thead>
<tbody>
<tr>
<td>United Kingdom</td>
<td>Occupational and Environmental Medicine</td>
<td>1944</td>
<td>Donald Hunter</td>
<td>British Journal of Industrial Medicine</td>
<td>British Medical Association (UK)</td>
</tr>
<tr>
<td>United Kingdom</td>
<td>Occupational Medicine (Oxford)</td>
<td>1951</td>
<td>Hubert Wyers</td>
<td>Transactions of the Association of Industrial Medical Officers</td>
<td>Association of Industrial Medical Officers (UK)</td>
</tr>
<tr>
<td>Europe</td>
<td>La Medicina del Lavoro</td>
<td>1901</td>
<td>Luigi Devoto</td>
<td>Il Lavoro—Rivista di Fisiologia, Clinica ed Igiene del Lavoro</td>
<td>Tipografia Cooperativa, Via dei Molini (Italy)</td>
</tr>
<tr>
<td>Europe</td>
<td>International Archives of Occupational and Environmental Health</td>
<td>1930</td>
<td>Heinrich Zangger</td>
<td>Archiv für Gewerbepathologie und Gewerbehygiene</td>
<td>Verlag von Julius Springer (Germany)</td>
</tr>
<tr>
<td>Japan</td>
<td>Journal of Occupational Health</td>
<td>1959</td>
<td>Bogo Koinuma</td>
<td>Sangyō Igaku</td>
<td>Japan Association of Industrial Health (Japan)</td>
</tr>
<tr>
<td>Japan</td>
<td>Industrial Health</td>
<td>1958</td>
<td>Masayoshi Yamaguchi</td>
<td>Bulletin of the National Institute of Industrial Health</td>
<td>National Institute of Industrial Health (Japan)</td>
</tr>
</tbody>
</table>

*Currently retired and living in Norway.
**National Board of Occupational Safety and Health (NBOSH) Sweden, Occupational Health Foundation (OIH) Finland, Swedish Medical Society, Section for Environmental Health (SMS–SEH) Sweden, Work Research Institutes (WRI) Norway, Workers’ Protection Fund (WPF) Denmark.
opened a lung clinic in Paterson, New Jersey. A series of
annals of the New York Academy of Sciences
He would eventually go on to edit or co-edit 11 volumes of
legislation, reflected pioneering research undertaken by Irv-
cultural part of OSHA 1970, particularly in relation to asbestos
workplace issues from a legal and social standpoint. A cru-
as of its early influences reflect developmental milestones of US
occupational medicine throughout the 20th century. As so-
cultural movements and academic interest began turning towards
worker’s health in the early part of the century, educational
needs for physicians also emerged, with Harvard University
offering the first academic degree in industrial hygiene
during 1918. In 1946–1947, the Universities of Cincinnati
and Pittsburgh simultaneously introduced formal programs
of study in a new postgraduate field then known as “Indus-
trial Medicine.” Subsequently, a new generation of formally
trained clinicians began exerting their influence in the field
of industrial hygiene and occupational medicine. In 1970,
the US Occupational Safety and Health Act (OSHA 1970)
provided the first federal standard for occupational health, a
move that helped further develop community interest in
workplace issues from a legal and social standpoint. A cru-
ical part of OSHA 1970, particularly in relation to asbestos
legislation, reflected pioneering research undertaken by Irving J. Selikoff (1915–1992), an American researcher who
became foundation Editor-in-Chief of the AJIM in 1980. At
the time Selikoff was head of Environmental Sciences at the
Mount Sinai Medical Center in New York, and had earlier
founded another journal, Environmental Research, in 1967.
He would eventually go on to edit or co-edit 11 volumes of
the Annals of the New York Academy of Sciences.

After medical training in Scotland and Australia during the
1940s, Selikoff had earlier studied chest diseases and
opened a lung clinic in Paterson, New Jersey. A series of
unusual illnesses among workers from an asbestos plant led
to a lifelong interest in asbestos-related disease. In 1966
Selikoff had been appointed founding director of the first
US hospital division dedicated solely to environmental and
occupational medicine, and would eventually stay at Mount
Sinai for much of his career spanning over 50 years. During
this time, his asbestos research would be instrumental in
revising workplace exposure limits to be approximately 100
times lower than in earlier years. Selikoff would later be
known as America’s foremost medical expert on asbestos-
related diseases between the 1960s and the early 1990s.
He served as Editor-in-Chief at the AJIM between 1980 and
1982, during which time it evidently prospered, expanding
from a quarterly to bimonthly periodical in 1983, when Philip
Landrigan took over as Editor-in-Chief. In 1984 the AJIM
expanded further into a monthly publication, publishing 2
volumes of 6 issues each year. Landrigan remained Editor-
in-Chief until 2006 when the journal reverted to publishing
a single volume per year, consisting of 12 monthly issues.
As of 2009, the AJIM can lay claim to being one of the few
occupational medicine periodicals that has never changed its
name (Table 2).

**OCCUPATIONAL AND ENVIRONMENTAL MEDICINE**

Origins of Occupational and Environmental Medicine (OEM) can be traced back to the Association of Indus-
trial Medical Officers (AIMO) in the UK who had urged
senior members of the British Medical Association (BMA)

<table>
<thead>
<tr>
<th>Year</th>
<th>Journal Milestones and Related Events</th>
</tr>
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<tbody>
<tr>
<td>1996</td>
<td>JJIH becomes the Journal of Occupational Health</td>
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<tr>
<td>1995</td>
<td>JOM becomes the Journal of Occupational and Environmental Medicine</td>
</tr>
<tr>
<td>1994</td>
<td>BJIM becomes Occupational and Environmental Medicine</td>
</tr>
<tr>
<td>1992</td>
<td>JSOM becomes Occupational Medicine (Oxford)</td>
</tr>
<tr>
<td>1980</td>
<td>American Journal of Industrial Medicine is founded in the US</td>
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<tr>
<td>1976</td>
<td>IAOG becomes the International Archives of Occupational and Environmental Health</td>
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<tr>
<td>1975</td>
<td>Scandinavian Journal of Work, Environment &amp; Health is founded in Finland</td>
</tr>
<tr>
<td>1973</td>
<td>TSOM becomes the Journal of the Society of Occupational Medicine (JSOM)</td>
</tr>
<tr>
<td>1970</td>
<td>IAGG becomes the International Archives of Occupational Health (IAOH)</td>
</tr>
<tr>
<td>1967</td>
<td>TAIMO becomes the Transactions of the Society of Occupational Medicine (TSOM)</td>
</tr>
<tr>
<td>1963</td>
<td>RNIIH becomes Industrial Health</td>
</tr>
<tr>
<td>1962</td>
<td>Work, Environment, Health (WEH) is first published in Finland</td>
</tr>
<tr>
<td>1962</td>
<td>AGG becomes the Internationales Archiv für Gewerbeopathologie und Gewerbehygiene (IAGG)</td>
</tr>
<tr>
<td>1959</td>
<td>Sanyo Igaku (Japanese Journal of Industrial Health [JIIH]) is founded in Japan</td>
</tr>
<tr>
<td>1959</td>
<td>Journal of Occupational Medicine (JOM) is founded in the US</td>
</tr>
<tr>
<td>1958</td>
<td>Bulletin of the National Institute of Industrial Health (BNIH) is founded in Japan</td>
</tr>
<tr>
<td>1951</td>
<td>Transactions of the Association of Industrial Medical Officers (TAIMO) is founded in the UK</td>
</tr>
<tr>
<td>1944</td>
<td>British Journal of Industrial Medicine (BJIM) is founded in the UK</td>
</tr>
<tr>
<td>1930</td>
<td>Archive für Gewerbeopathologie und Gewerbehygiene (AGG) is founded in Germany</td>
</tr>
<tr>
<td>1925</td>
<td>IL changes its name to La Medicina del Lavoro (ML)</td>
</tr>
<tr>
<td>1920</td>
<td>Nordisk Hygienisk Tidsskrift (NHT) is founded in Sweden</td>
</tr>
<tr>
<td>1901</td>
<td>Il Lavoro—Rivista di Fisiologia, Clinica ed Igiene del Lavoro (IL) is founded in Italy</td>
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to create a specialist journal of occupational medicine during the 1940s. As a result, the *British Journal of Industrial Medicine* (BJIM) was founded by the BMA in 1944, with Donald Hunter (1898–1978) as founding Editor-in-Chief, assisted by Donald Norris and Donald Stewart. Hunter was already a key figure in the rapid development of British occupational medicine, having been appointed Director to the *Medical Research Council’s* (MRC) newly formed Department of Research in Industrial Medicine during 1943. The difficulties of launching a new journal in the middle of a World War were not lost on the editorial board, although according to a Foreword by Lord Moran, no country could compare with England in its organization of methods to prevent industrial disease. Things did not always run smoothly in the journal’s early years, however, with demand sometimes outrunning supply and 1 issue being only 29 pages long. By the early 1950s, members of the AIMO were beginning to feel that research and academic interests of the newly formed BJIM were not adequately reflecting their interests, which led to the journal splitting into 2 separate, though complementary, entities in 1951: the BJIM and the *Transactions of the Association of Industrial Medical Officers* (TAIMO).

Although this left certain gaps in the BJIM, much was filled by the increasing output of original scientific papers from Hunter’s department at the MRC. Although ill-health forced Hunter to hand over editorial duties of the BJIM to Richard Schilling in 1951, he was still involved with the journal and also published the first edition of his famous text, the *Diseases of Occupations*, in 1955. Around this time, the BJIM reached a critical stage in its development, as the editorial board began enforcing higher academic standards for submitted manuscripts and was also becoming increasingly successful in attracting a greater number of articles from overseas contributors. By the 1990s, the BJIM had become a leading journal in the field, and for its 51st year in 1994 changed names to *Occupational and Environmental Medicine*, with a new Editor-in-Chief (Anne Cockcroft), journal cover, and physical size. Part of the name change also included the new journal being distributed to all Fellows, Members, and Associates of the Faculty of Occupational Medicine in London. By 2003, the journal was receiving almost 500 submissions per year. By 2007, OEM’s impact factor had risen to one of the highest among the international periodicals of occupational medicine, a trend which continues today.

**Occupational Medicine (Oxford)**

Similar to OEM, historical development of *Occupational Medicine (Oxford)* (OM) can be traced back to the foundation of AIMO in 1935 and the *British Journal of Industrial Medicine* in 1944. In 1948, a *Quarterly Bulletin of the Association of Industrial Medical Officers* commenced publication and one which initially comprised news items and commentary, but later included a record of association meetings as well as other papers on the practice of occupational medicine. By 1951, the aforementioned BJIM had split into separate entities as previously described, the BJIM itself, and TAIMO. A founding member of the Thackrah Club, Hubert Wyers (1900–1956), was appointed foundation Editor-in-Chief, having worked as Chairman of the London branch of AIMO between 1953 and 1955 and having been awarded an MD degree for his 1947 thesis on asbestosis. The first Hubert Wyers’ Memorial Lecture was delivered in 1957 by Andrew Meiklejohn, who had succeeded Wyers as Editor-in-Chief after his untimely death 1 year earlier, in 1956. The journal continued to publish as TAIMO until 1966.

In 1967, TAIMO changed its name to the *Transactions of the Society of Occupational Medicine* (TSOM) and would remain as such until the end of 1972. Between 1973 and 1991, the journal was known as the *Journal of the Society of Occupational Medicine* (JSOM), and continued to serve the needs of practicing occupational physicians. Although it remained the official journal of the UK Society of Occupational Medicine, in 1992, JSOM changed its name to *Occupational Medicine (Oxford)* under the guidance of then Editor-in-Chief, Dennis D’Auria. These numerous changes in the official title had been deemed necessary to not only reflect the journal’s purpose, but also to help distinguish it from other international periodicals serving practitioners in the field of occupational medicine. Although both OM and OEM share a common history, OM was able to successfully carve out its niche as being more “practice-orientated.” It was noted that although most of the early contributions had come from the UK, by the year 2000 an increasing proportion of articles were being submitted by authors outside the UK. OM celebrated its 50th anniversary in that year with a special issue containing the results of a readership survey and general historical overview. In 2009 OM continues to publish under the same name.

**La medicina del lavoro**

Bernardino Ramazzini is often referred to as the father of modern occupational medicine, and Italy is known to have a strong tradition of scientific and professional associations. It can also lay claim to having founded what is probably the oldest regular periodical of occupational medicine. The journal, *La medicina del lavoro* (Italian Journal of Occupational Health and Industrial Hygiene), was originally issued in December 1901 as *IL Lavoro—Rivista di Fisiologia, Clinica ed Igiene del Lavoro* (IL Lavoro—Journal of Physiology, Clinics and Hygiene of Work). Much of the credit for its formation can be given to Luigi Devoto (1864–1936), a Professor at the Medical School of Pavia who was the first to offer a university course on occupational diseases. Devoto had previously graduated in medicine at Genoa University during 1888 and had published several important papers in the field of occupational health, as well as other branches of medicine that he considered were indirectly work-related. In 1902, Devoto had successfully founded an institute, the
Clinica del Lavoro in Milan, to scientifically study the causes of occupational illness. Being medically orientated from its early days, one of the clinic’s objectives has always been to further the postgraduate training of physicians. A Permanent International Commission on Occupational Health (PICOH) was subsequently organized by Devoto in Milan during 1906, and by 1910, the Clinica del Lavoro had been officially inaugurated in the same city.

Although the journal’s headquarters were originally located in Pavia, they moved to Milan during 1911. IL experienced difficulties in its early years, with volume 1 being published over a 2-year period (1901–1902) and only 3 volumes appearing between 1901 and 1910. No volumes were published in 1916, 1918, and 1919, due to interruptions caused by the First World War, with only 180 pages being issued during 1917. By Volume 11 in 1920–1921, however, IL had become a regular periodical, and from Volume 16 in 1925 the journal became La Medicina del Lavoro (ML), a name still used today. ML became an official organ of the Italian Society of Occupational Health following its formation in 1929. Devoto would eventually serve as Editor-in-Chief from IL Lavoro’s foundation in 1901 until his death in 1936.

A new director of the Clinica del Lavoro between 1935 and 1941, Luigi Preti (1881–1941), succeeded Devoto as Editor-in-Chief between 1936 and 1941. Preti had previously served as Devoto’s assistant at the Clinica between 1922 and 1926. In 1942, Enrico Vigliani (1907–1992) took over as director of the Clinica del Lavoro and would hold this position for 35 years until 1977, although he remained Editor-in-Chief of ML until 1992. The revival of ML as a respected academic journal during the immediate postwar years has often been attributed to the professional dedication of Vigliani. In 1992, Vito Fo`a succeeded Vigliani and remains chief editor to this day. The journal celebrated its 100th year in 2001 and its 100th volume in 2009.

INTERNATIONAL ARCHIVES OF OCCUPATIONAL AND ENVIRONMENTAL HEALTH

The International Archives of Occupational and Environmental Health (IAOH) was originally established in 1930 as the Archiv für Gewerbepathologie und Gewerbekunde (AGG), with Heinrich Zangger (1874–1957) as founding Editor. Zangger had long been a friend of Albert Einstein in Zurich, occasionally serving as a substitute father for Einstein’s 2 sons while he was living apart from them. Zangger was an early pioneer of occupational and environmental medicine, being one of the first to recognize mine dust as a cause of silicosis, as well as identifying the dangers of lead in white house paint. The AGG was co-edited by another Viennese physician who had been seminal in the development of European occupational medicine, Ludwig Teleky (1872–1957), having been Director of the Postgraduate Academy of Public Health and Industrial Medicine in Dusseldorf and a founding member of the Permanent International Commission on Industrial Medicine in 1906. Issue 1 of the AGG included many international editorial board members who were already, or would later become, famous names in occupational health, such as Cecil K. Drinker, Alice Hamilton, Emery Hayhurst, and Charles-Edward Winslow from the US, Thomas Oliver from the UK, and Charles Badham from Australia. After the First World War, an intensive phase of industrial hygiene research began in Germany, which was heavily influenced by international discussion and cooperation involving the AGG. Between 1962 and 1969, the AGG was known as the Internationales Archiv für Gewerbepathologie und Gewerbekunde (IAGG), and continued to publish exclusively in German until 1969, as had been the case since its inception in 1930. In 1970, the IAGG changed its name to the dual title, Internationales Archiv für Arbeitsmedizin (IAA) / International Archives of Occupational Health (IAOH), and began publishing manuscripts in English, French, and German.

By the 1970s, the journal had widened its scope to include more focus on environmental medicine, thereby paving the way for another name change in 1976 to the dual title: the International Archives of Occupational and Environmental Health (IAOEH) (in English) and the Internationales Archiv für Arbeits und Umweltdiagnose (in German). Increasing internationalization led to the German component of the title being dropped in 1980, although manuscripts continued to be published in German and English until 1983. In 1994 the journal began publishing occasional articles that described the national status and medical qualification systems for occupational physicians, although it still continued to emphasize clinical research and epidemiology. By 2003, when Gerhard Lehnert handed over the IAOEH reins to Hans Drexler, he had been one of the longest serving Editors-in-Chief in the history of occupational medicine journals, occupying this position from 1970 to 2003. In 2009, IAOEH remains the official journal of the German Society for Hygiene and Environmental Medicine, as well as the International Society of Environmental Medicine.

SCANDINAVIAN JOURNAL OF WORK, ENVIRONMENT & HEALTH

The Scandinavian Journal of Work, Environment & Health (SJWEH) can trace origins to its direct predecessors, Nordisk Hygienisk Tidsskrift, which was published in Sweden between 1920 and 1974, and the journal Work, Environment, Health, which was published in Finland between 1962 and 1974. Both were amalgamated in 1975 to form a quarterly periodical, the SJWEH, published jointly by the National Board of Occupational Safety and Health (NBOSH) Sweden, Occupational Health Foundation (OHF) Finland, Swedish Medical Society, Section for Environmental Health (SMS-SEH) Sweden, Work Research Institutes (WRI) Norway, and the Workers’ Protection Fund (WPF) of Denmark. Between 1975...
and 1980, the newly formed SJWEH received economic support from the Nordic Council of Ministers, after which time it became self-supporting. Sven Hernberg (born 1934) was appointed foundation Editor-in-Chief, being somewhat of a pioneer in Nordic occupational health by entering the Finnish Institute of Occupational Health (FIOH) at 26 years of age and publishing 9 original research reports even before qualifying as an occupational physician. Throughout his career, Hernberg’s focus was on research and development as well as cancer epidemiology, interests that no doubt influenced the SJWEH’s content and direction to some extent. Aside from editing the journal, Hernberg served as Scientific Director of FIOH (1974–1994) while continuing to work as Director of the Department of Epidemiology and Biostatistics, and also held various positions with the International Commission on Occupational Health (ICOH), including President and Immediate Past President.

High standards were enforced and the SJWEH matured, partly due to Hernberg’s early assertion that only important results be reported, combined with his refusal to publish material simply for the sake of publishing. By 1983, the journal had expanded into a bimonthly periodical, and in 1995, introduced a range of new article categories such as Opinions, News, and Congress Reports. Its content and focus also changed over time. By 1999, for example, epidemiologically orientated articles were becoming more common, whereas clinical studies on occupational disease had been steadily decreasing in number. The quality of submissions had also increased, leading the editorial board to be more selective and allowing the luxury of only publishing the best contributions.

Throughout this period, Hernberg himself contributed numerous editorials to the SJWEH. In 1999, for example, a millennium editorial was published with a particularly insightful comment that “without clear thinking, there cannot be good research.” Other editorials were related to inconclusive cancer epidemiology, ethics in research, and the misuse of statistics in occupational epidemiology. Hernberg would remain Editor-in-Chief at the SJWEH for one of the longest time periods in occupational medicine (after the aforementioned Gerhard Lehnert), until he handed over the reins to Mikko Härmä in 1999.3

**JOURNAL OF OCCUPATIONAL HEALTH**

Although great improvements were made in Japanese workers’ health following the Second World War, there had been a certain interest in occupational health prior to this time, with establishment of the Kurashiki Institute for Science of Labor in 1921, and formation of the Japan Association of Industrial Health (JAIH) in 1929. The Journal of Occupational Health (JOH) was officially launched by the JAIH in 1959 as Sangyō Igaku (the Japanese Journal of Industrial Health). A hygiene professor from Nippon University, Bogo Konuma (1891–1980), was appointed as foundation Editor-in-Chief, and would later serve as JAIH president for 11 years. The immediate postwar period was seminal in the development of modern occupational health in Japan, and between 1959 and 1994, Sangyō Igaku published a variety of manuscripts documenting these events, predominantly in Japanese. By the 1990s, an increasingly international perspective had developed within the JAIH, leading the editorial board to consider an English-language format for their official journal. The JSIH had also changed its name to the Japan Society for Occupational Health (JSOH) during this period. Under the guidance of then Editor-in-Chief Akio Sato, a new direction for the journal was officially announced in 1994, and one which would encourage the publication of English-language manuscripts. In 1995, the journal’s official title changed to a dual-language format, Sangyō Eiseigaku Zasshi: Journal of Occupational Health, with both Japanese and English manuscripts being accepted during this period.

The change was evidently successful in attracting new English-language manuscripts from abroad, with the Editor-in-Chief reporting an increase in submissions from one original article of this type in 1993, to 9 articles in 1995. Although the new English format was clearly a success, the journal remained an official publication of the JSOH and still needed to serve the needs of its fee-paying Japanese membership. For these reasons, it was officially split into 2 separate publications from 1996 onwards, the English-language Journal of Occupational Health (JOH) and its Japanese-language counterpart, the Sangyō Eiseigaku Zasshi (SEZ). A preliminary website was also established in the same year. By 2000, demand was such that the JOH had become a bimonthly periodical, whereas the SEZ continued as a quarterly publication. In 2009, the JOH remains an English-language periodical and the SEZ a Japanese journal, both of which are official publications of the Japan Society for Occupational Health (JSOH).

**INDUSTRIAL HEALTH**

*Industrial Health* has its origins in 1958, when the National Institute of Industrial Health (NIIH) in Japan began publishing a Bulletin of the National Institute of Industrial Health (BNIIH), to help disseminate the research findings of NIH staff. By 1963, an increasing need to involve outside researchers had led the BNIIH to be renamed Industrial Health (IH), with the then Director-General of the NIH, Masayoshi Yamaguchi (1906–1997), being appointed foundation Editor-in-Chief, a position he would hold until 1976. After graduating from medical school in the 1930s, Yamaguchi had studied industrial health at Yale University in the United States and would later be instrumental in setting up the Factory Physician System in Japan. Upon retiring in 1977, Yamaguchi handed over IH to Hiroyuki Sakabe, a researcher who had already published a classic paper on lung cancer during 1973. Sakabe would later be recognized as an influential worldwide figure in occupational cancers, with his photo appearing on the cover of *Cancer Research* during 1990. Throughout this period, IH continued to be...
published by the NIINH, with each new director of the institute also taking on the role of Editor-in-Chief.

IH experienced a declining rate of submissions during the early 1990s, with some issues having to be combined and the journal even losing its impact factor between 1995 and 1997. Composition and direction evolved as the editorial board expanded into a more multidisciplinary group and an increasingly international focus was sought. In the 1980s and early 1990s, for example, a large proportion of Letters-to-the-Editor and Short Communications were being published. By the late 1990s, however, the main category of articles had changed to Original Articles and Literature Reviews. Special Issues focusing on various topics began to appear in 1997 and have since become regular features. IH had earlier changed cover art in 1982 and increased its physical size in 1997, thereby allowing more articles to be included in each issue. Shunichi Araki was appointed Editor-in-Chief in the year 2000. The Japan National Institute of Occupational Safety and Health (JNIOSH) was formed in 2006 via amalgamation of the former NIINH with the National Institute of Industrial Safety (NIIIS), thereby taking over as publisher during the same year. By 2007, the number of submissions received were sufficient to allow expansion of IH into a bimonthly publication, which it remains to this day.

DISCUSSION

As this review has shown, academic journals in occupational medicine have undergone considerable change over time. Periodicals tend to follow the discipline they represent, and thereby offer an interesting chronological record of its development over time. Much of the driving force behind any journal, particularly a new title, is its Editor-in-Chief. For these reasons, a brief synopsis of their careers is invaluable for helping understand the progression of a periodical, and as this article has shown, also provides an interesting look at important figures who helped shape modern occupational medicine. Nevertheless, it is fair to acknowledge that any historical review will suffer limitations based on the availability of historical data, and the fact that equivalent material is not always available for each individual journal. Compiling a detailed historical record for each periodical proved difficult in the current study due to inconsistencies in source material. For these reasons, some sections focused mainly on careers of their Editors-in-Chief, whereas others elaborated more on historical events relevant to the periodical in question. Nevertheless, the current article does provide one of the first complete accounts of historical development among nine core journals in the field of occupational medicine.

Although a historical examination of academic journals certainly provides an interesting look at the development of a medical specialty, it also highlights many of the unique challenges that still lie ahead as we pass through the 21st century. An increasing proportion of these issues are now being debated in our field. Firstly, there is the issue of academic standardization, given that all 9 periodicals described have still not adopted a consistent referencing system and approach to peer review. Secondly, there remains an ongoing debate in the occupational medicine literature regarding the usefulness of bibliometric indicators (such as impact factors), their validity and general relevance to occupational medicine journals. The time period covered by this review would also witness the rise of citation analysis, for better or for worse, as an increasingly important method for judging the relative scientific merits of an academic periodical. Thirdly, education and its role in the profession continues to be a key topic for debate in the occupational medicine literature. As late as the 1960s, for example, Kehoe had noted that there was still a widespread belief that “a few weeks of indoctrination” would be sufficient to “convert any physician into a reasonably capable practitioner of occupational medicine” (p. 645). It is the discussion, debate, and ultimate resolution of these issues that will hopefully be recorded by the next generation of academic periodicals in occupational medicine.

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