COMMENT

Medical professionals' resistance against the arms race and nuclear weapons

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Abstract

The atomic bombing of Hiroshima and Nagasaki 78 years ago changed the concept of the impact of wars. The hope that the level of devastation would make the world think seriously about taking steps to give up the arms race and focus on human welfare did not materialise. The arms race continues unabated. From one nuclear weapons state in 1945, the number has increased to nine. Nearly 13000 nuclear weapons present on earth are enough to extinguish humankind. This has raised serious concern among medical professionals resolving to preserve life and promote health, who are now coming together for the complete abolition of nuclear weapons.

Nuclear arms race — historical perspective and the present

The Second World War was an unprecedented event in human history, with estimates of the total number of people killed ranging from 35 million to 60 million [1]. Many times more people were injured or became destitute. All humanitarian values were swept aside. Torture in the Nazi concentration camps shook the whole world. Ethnic wiping out of the Jews by the Nazis was heinous to the core.

The war had almost ended after the surrender of Hitler's army on May 8, 1945. Japan's surrender was imminent. At this time, the United States of America (US) exploded the first nuclear weapon on July 16, 1945. Atomic weapons were used on human populations in Hiroshima and Nagasaki in Japan, on August 6 and 9, 1945. This heralded a new era of warfare and set the stage for an arms race on a much bigger scale.

The atom bomb

The nuclear weapon is different from other weapon systems because it causes intense blasts and releases high temperatures. During the period of peak energy output, a 1-megaton (Mt) nuclear weapon can produce temperatures of about 100 million degrees Celsius at its centre, about four to five times that which occurs at the centre of the Sun [2]. As a result, all life systems, and even concrete, melt and fall to the ground, up to two to three miles from the epicentre of the blast. There is release of radiations which have a serious detrimental impact on the human body for several years. High levels of radiation cause bleeding from various parts of the body leading to death. The impact of radiation lasts for several years causing cancers and other disabilities in generations to come.

Dr Marcel Junod, head of the International Committee of the Red Cross (ICRC) delegation in Japan was the first foreign doctor to reach Hiroshima on September 8, 1945. As he described it, "the centre of the city is a sort of white patch, flattened and smooth like the palm of a hand. Nothing remained. The slightest trace of houses seemed to have disappeared. The medical care is rudimentary…. Several patients are suffering from the delayed effects of radioactivity with multiple haemorrhages. They need small blood transfusions at regular intervals; but there are no donors, no doctors to determine the compatibility of the blood groups; consequently, there is no treatment".[3] He noted that out of 300 doctors, 270 had died or were injured; out of 1,780 nurses, 1,654 were dead or injured. He made an appeal for the bomb to be banned outright, just as poison gas was outlawed in the aftermath of the First World War [3]. Together these two bombs killed some 220,000 Japanese citizens outright, with over 200,000 more dying subsequently from lethal radiation overdoses [4].

Many of the modern nuclear weapons with Russia and the US have explosive yields of at least 100 kilotons of dynamite while those used in Hiroshima and Nagasaki had explosive yields of about 15 kilotons of dynamite and 20 kilotons of dynamite, respectively [5].

Between 1945 and 1992, the United States conducted 1,032 tests; and the Soviet Union carried out 715 tests between 1949 and 1990. The nuclear weapons' testing affected life systems around the test sites adversely [4].

No more a "limited" nuclear war!

A study titled *'Nuclear Famine'* carried out through the efforts of Dr Ira Helfand — Former Co-President International Physicians for the Prevention of Nuclear War (IPPNW) — in coordination with several physicists, biologists, climatologists and other scientists says that even

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a "limited" or "regional" nuclear war "would cause abrupt climate disruption and global starvation" which could kill billions.

Lili Xia at Rutgers University led an international team that examined how much sun-blocking soot would be generated under various scenarios of a nuclear war between India and Pakistan – the study could, in fact, apply to any countries anywhere in the world. "A blast over a city can create a firestorm – a massive fire fed by in-rushing winds of hurricane strength… Soot from burning cities would be lofted miles above the clouds, blown around the world, and float up there for years. It would blot out the sun. Temperatures would plummet; crops would fail" [6: pp 3-5].

It would affect weather patterns throughout the world. This will produce an average surface cooling of –1.25ºC that would last for several years. Even 10 years out, there would be a persistent average surface cooling of –0.5ºC. This would lead to crop failure. Thus a "famine could result for a third of Earth... using less than 3% of the global nuclear arsenal." More than 2 billion people could die of starvation, that is every 3rd person on earth. In the event of a full-scale nuclear conflict between Russia and the United States the team estimated that 5 billion people would die within two years. [6: p7].

Michael Mills and his team at the National Center for Atmospheric Research in Colorado concluded that in the above scenario 20% of global ozone would be destroyed. This would expose the earth to high levels of UV radiation causing more sunburns, cancers, cataracts, immunosuppression and photo aging and also hinder crop growth [6: p 8].

Shortage of food would lead to increase in food prices making it inaccessible to hundreds of millions of the world's poorest. With this, 215 million people from the global South would be added to the rolls of the malnourished over the course of a decade. This could lead to large scale violence and even wars.

Illusionary peace after the cold war

It was expected that the arms race would slow down after the end of the Cold War, but that did not happen. The recent report on the state of annual assessment of the state of armaments, disarmament, and international security released by the Stockholm International Peace Research Institute on June 12, 2023 is startling. The report highlights that the "number of operational nuclear weapons has in fact increased because several countries have expanded their long-term force modernization plans". At present, it is estimated that there were 12512 warheads in January 2023. Out of this about 9576 were in military stockpiles for potential use, which is 86 more than in January 2022. Russia and the USA together possess almost 90 per cent of all nuclear weapons [7].

The International Campaign to Abolish Nuclear Weapons (ICAN), in its fourth annual report on nuclear weapon spending today, *Wasted: 2022 Global Nuclear Weapons Spending,* has come out with with data showing that" in 2022, nuclear-armed states spent five thousand more dollars per minute on their nuclear arsenals than the year before, a total of $157,664 per minute on nuclear weapons. Nine countries spent $82.9 billion in 2022 on nuclear weapons, of which the private sector earned at least $29 billion. The United States spent more than all of the other nuclear-armed states combined, at $43.7 billion. Russia spent 22% of what the US did, at $9.6 billion, and China spent just over a quarter of the U.S. total, at $11.7 billion; India: $2.7 billion".[8] This amount could have been utilised for several social welfare needs instead.

It is therefore important that a persistent campaign is launched for the abolition of nuclear weapons.

The myth of nuclear deterrence

There is a lobby which has consistently been propagating that nuclear weapons are a deterrent to war. This deterrence theory is a myth. India exploded its nuclear weapon on May 11, 1998, followed by Pakistan on May 28,1998. It did not stop the war between the two at Kargil in 1999. Similarly, their possession of nuclear weapons has not been able to stop the on-going war between Russia and Ukraine with the explicit involvement of the US and NATO. This is posing a grave threat of possible use of nuclear weapons. There is an equally grave danger that the nuclear power plants in the Ukraine could become a potential nuclear threat in case of any serious attack on them.

Frequent false alarms

Any technological failure could lead to havoc. There have been several false alarms in the past. One such false alarm in 1983, on the night of September 26 and 27, had brought the world almost to the brink, but for the bold decision by Stanislav Petrov, the duty officer in the Serpukhov-15 command centre in the USSR not to fire back. Ultimately the alarm turned out to be a system malfunction [9].

It is now well accepted that nuclear weapons could be launched by human error, technological failure, accidental launch or a terrorist act. That such weapon systems could be brought under artificial intelligence is very disturbing, as they will be more prone to cyber-attacks [10].

Nuclear dangers today

In January, 2023, the Science and Security Board of the Bulletin of the Atomic Scientists moved the hands of the Doomsday Clock forward to 90 second before midnight, reflecting the growing risk of nuclear war. In August, 2022, the UN Secretary-General António Guterres warned that the world is now in "a time of nuclear danger not seen since the height of the Cold War". The danger has been underlined by growing tensions between many nuclear armed states.

An editorial written by several health professionals, and also published in this journal, has warned of the serious danger

of nuclear weapons and demanded that the nuclear armed states must eliminate their nuclear arsenals before they eliminate us [11].

Treaty on the Prohibition of Nuclear Weapons (TPNW) is a unique opportunity

On July 7, 2017 — following a decade of advocacy by the ICAN and its partners — an overwhelming majority of the world's nations adopted a landmark global agreement to ban nuclear weapons, known officially as the Treaty on the Prohibition of Nuclear Weapons (TPNW). With 92 signatories and 68 ratifications, it has already come into force on January 22, 2021. It prohibits nations from developing, testing, producing, manufacturing, transferring, possessing, stockpiling, using or threatening to use nuclear weapons, or allowing nuclear weapons to be stationed on their territory. It also prohibits them from assisting, encouraging or inducing anyone to engage in any of these activities. This is a multilateral treaty which can yield a positive outcome [12].

Doctors' movement for nuclear weapons abolition

There was a powerful anti-nuclear movement around the globe in the 1980s. This led to significant reduction in the number of nuclear weapons. The world's nuclear arsenals had swelled throughout the Cold War, from slightly more than 3,000 weapons in 1955 to over 60,000 in the late 1980s, with the United States possessing 23,000 and the Soviet Union, 39,000 [4]. However, there was complacency in the anti-nuclear movement after the end of the Cold War.

The IPPNW, founded in 1980, has been vociferously campaigning for the complete abolition of nuclear weapons. For its efforts, the organisation was awarded the Nobel Peace Prize in 1985. It was with the efforts of the IPPNW, ICAN came into being in 2007, as a group of organisations working for nuclear disarmament. In fact, the issue of the humanitarian impact of nuclear weapons, as propagated by the IPPNW, convinced countries around the world to support the TPNW. It was despite tremendous pressure and blackmail by the major nuclear powers, that 122 states voted in favour of the resolution on TPNW in the United Nations General Assembly on July 7, 2017, with only one vote against and one abstention.

The movement for complete abolition of nuclear weapons is gaining ground among medical professionals. In its recently held 23rd World Congress at Mombasa, Kenya, the IPPNW has taken strong cognizance of the twin existential threats due to nuclear weapons and climate change. In South Asia, various affiliates in India, Pakistan, Bangladesh, Nepal and Sri Lanka jointly raised their voices for a world free of nuclear weapons and making South Asia a nuclear weapons-free zone. The Indian Doctors for Peace and Development has taken several initiatives on this and organised the World Congress of IPPNW in 2008. Several medical bodies including the Red Cross, World Health Organization, public health associations, and nursing associations have supported the demand for a nuclear weapons-free world.

IPPNW has also supported the idea of nuclear weapons free zones in the world. There are currently five Nuclear-Weapon-Free Zones, covering territories in most of the southern hemisphere and in Central Asia. Antarctica and Mongolia have a special nuclear-weapon-free status as well.

The peace movement is faced with challenging tasks in its aim to save and promote the health of humankind. There is an urgent need to build and strengthen the narrative for peace and disarmament for better health for our citizens.

We have to convince the countries possessing nuclear weapons through intense lobbying with the decision makers to join the TPNW, and build public opinion for disarmament through the promotion of mutual dialogue. IPPNW is making tireless efforts to stop the Russia-Ukraine War. Any delay in ending this war could lead to catastrophic happenings. We cannot let the military industrial complex take the world for granted and make huge profits at the cost of massive destruction of people's lives.

References

1. Britannica, The Editors of Encyclopaedia. How many people died during World War II? *Encyclopaedia Britannica*. 2022 Dec 28 [Cited 2023 Sep 13]. Available from: https://www.britannica.com/question/How-many-people-died-during-World-War-II.
2. The Medical Implications of Nuclear War. Possible fatalities from superfires following nuclear attacks in or near urban areas. Washington (DC): National Academies Press (US); 1986 [Cited 2023 Sep 10]. Available from: https://www.ncbi.nlm.nih.gov/books/NBK219184/#:~:text=During%20the%20period%20of%20peak,the%20center%20of%20the%20Sun
3. International Committee of the Red Cross. The Hiroshima disaster – a doctor's account.. ICRC;2005 Sep 5[Cited 2023 Sep 9]. Available from: https://www.icrc.org/en/doc/resources/documents/misc/hiroshima-junod-120905.htm
4. United Nations. International Day against Nuclear Tests 29 August. [Cited 2023 Sep 13]. Available from: https://www.un.org/en/observances/end-nuclear-tests-day/history
5. International Campaign to Abolish Nuclear Weapons. How destructive are today's nuclear weapons? [Cited 2023 Sep 9]. Available from: https://www.icanw.org/how_destructive_are_today_s_nuclear_weapons
6. International Physicians for the Prevention of Nuclear War. *Nuclear Famine*. Malden, MA: IPPNW; 2022 [Cited 2023 Sep 9]. Pp 3-6. Available from: https://www.ippnw.org/wp-content/uploads/2022/09/ENGLISH-Nuclear-Famine-Report-Final-bleed-marks.pdf
7. Stockholm International Peace Research Institute. States invest in nuclear arsenals as geopolitical relations deteriorate—New SIPRI Yearbook out now. 2023 Jun 12[Cited 2023 Sep 13]. Available from: https://www.sipri.org/media/press-release/2023/states-invest-nuclear-arsenals-geopolitical-relations-deteriorate-new-sipri-yearbook-out-now
8. International Campaign to Abolish Nuclear Weapons. *Wasted: 2022 Global Nuclear Weapons Spending*. ICAN; 2023 Jun 12[Cited 2023 Sep 13]. Available from: https://www.icanw.org/wasted_2022_global_nuclear_weapons_spending#:~:text=Nine%20countries%20spent%20%2482.9%20billion,least%20%2429%20billion%20in%202022
9. Aksenov P. Stanislav Petrov: The man who may have saved the world. *BBC.com*. 2013 Sep 26[Cited 2023 Sep 13]. Available from: https://www.bbc.com/news/world-europe-24280831
10. Frackiewicz M. Submarine Warfare in the Age of AI: Opportunities and Threats. *Ts2.space.* 2023 Jun 20[Cited 2023 Sep 13]. Available from: https://ts2.space/en/submarine-warfare-in-the-age-of-ai-opportunities-and-threats/

#:~:text=One%20of%20the%20most%20promising,mine%20counter measures%20to%20offensive%20operations
11. Abbasi K, Ali P, Barbour V, Bibbins-Domingo K, Olde-Rikkert MGM, Haines A, et al. Reducing the risks of nuclear war — the role of health professionals. [Jointly published by 146 medical journals]. *Indian J Med Ethics*. 2023 Oct-Dec; 7(4):……..https://doi.org/10.20529/IJME.2023.049
12. International Campaign to Abolish Nuclear Weapons. TPNW signature and ratification status. 2022[Cited 2023 Sep 13]. Available from: https://www.icanw.org/signature_and_ratification_status

COMMENT

Evolving jurisprudence on conversion therapy: Reconsidering ethics in mental health systems

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Abstract

Since the Delhi High Court judgement (2009), reading down IPC 377 that criminalised homosexuality, the Indian judiciary has been at the forefront of invoking constitutional morality to uphold LGBTQIA+ rights. In contrast, the mainstream mental health systems have failed to uphold human rights and protect LGBTQIA+ people ethically, except for a few position statements. Though the Supreme Court directed the mental health fraternity to exercise utmost sensitivity to LGBTQIA+ issues, they have not risen to the occasion. The absence of gender affirmative guidelines and failure to put in place punitive action against those practising conversion therapies set apart Indian mental health systems, in stark contrast to international mental health associations. Here, we review landmark judgments and the actions of professional mental health bodies regarding LGBTQIA+ rights in India, from 2009 to 2022 — especially those regarding conversion therapies and the discriminatory medical curriculum — to examine the deepening crisis of public health ethics.

Keywords: *conversion therapy, mental health profession, judiciary, ethics, LGBTQIA+ rights*

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The capacity to suffer is, clearly, part of being human. But not all suffering is equal, despite pernicious and often self-serving identity politics that suggest otherwise.

> - Paul Farmer, On suffering and structural violence: A view from below. 1996.

In the past two decades, the Lesbian, Gay, Bisexual, Transgender, Queer, Intersex, Asexual + (LGBTQIA+) rights landscape has been marked by increasing demands for equal rights by LGBTQIA+ activists, allies, scholars [1,2,3,4] and international human rights bodies [5,6,7]. There is a demand for ending discriminatory policies against LGBTQIA+ individuals and bringing a ban on the notorious conversion therapy, "an umbrella term to describe interventions of a wide-ranging nature, all of which are premised on the belief that a person's sexual orientation and gender identity, including gender expression, can and should be changed or suppressed when they do not fall under a so-called 'desirable norm'" [8]. LGBTQIA+ rights started moving away from a state of legal stasis after the landmark judicial pronouncements in the Delhi High Court (HC) judgment in 2009 that decriminalised homosexuality [9], the Supreme Court (SC) judgment in 2014 that recognised transgender people as the third gender [10], and the 2018 judgment, which read down Section 377 of the Indian Penal Code that criminalised consensual same-sex relationships [11]. In short, these judgments went far beyond the mechanics of law, foregrounding the right to love for queer people. They also called for collective responsibility, especially among mental health professionals, in tackling prejudice and discrimination rooted in oppressive structures of gender binarism and heteronormativity.

Cognisant of the role of mental health disciplines in oppressing LGBTQIA+ people by pathologising same-sex behaviour, the SC issued a slew of directions to mental health professionals to — a) ensure protection against harmful medical and counselling practices that view sexual orientation and gender identity as medical conditions to be "treated" or "cured"; and b) to adopt progressive professional practices that enable freedom from discrimination and