Melanoma in the news

A discourse analysis on articles in The Australian newspaper

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Overview

- Melanoma Epidemiology
- Risk Factors & Pathogenesis
- Methods
- Results – Main themes identified
- Discussion
- Limitations
- Implications
- Reflection – understanding of Public Health
The Paper

- Objectives
  - Analyse and synthesise articles discussing melanoma
  - Extract dominant ideologies & attitudes
  - Obtain a snapshot of discourses informing public perceptions of melanoma
The Paper

- Thematic discourse analysis on articles
  - The Australian between 2000 - 2015
    - Revealed negative discourse
      - Genetic factors beyond the individual’s control
      - Very poor prognosis
      - Managed with experimental pharmaceuticals
Epidemiology - Australia

- 4th most commonly diagnosed cancer - 11,057 annually

- 2012 - 22,800 DALYs
  - 17,200 due to premature death

- Highest annual incidence - 49.8 cases / 100,000 (recently NZ took over)
  - U.S.A 14.2 (California 18.5)
  - U.K 12.5

Why public health messages matter in melanoma discourse

- Aware of effective and inexpensive preventative measures and interventions
  - sun block, sunglasses, hats and shade seeking behaviours

- Impact of such interventions is largely dependent on public perceptions of melanoma

- Success of public health messages is influenced by the communication and transfer of information from Dr’s to pt’s
What is melanoma?

- Melanocytes are found in the basal layer of the epidermis
- Melanin
  - Protein - protects skin cells by absorbing UVR
- Melanoma
  - Uncontrolled proliferation of melanocytic stem cells that have undergone genetic transformation
Risk Factors & Pathogenesis

1. **Genetic** - 10% of melanomas are familial, 2% attributable to rare high penetrance genes

2. **Environmental** - ~80% of melanomas develop in intermittently sun exposed areas. UVA & UVB damage.

3. **Phenotypic manifestations of gene-environment interactions** e.g. atypical melanocytic naevi, Ephelides & Solar lentigines

Rivers, J K Melanoma Lancet 1996
Methods - Discourse Analysis

- Qualitative research methodology

- Examines frames of communication at the “meta” level to identify thematic patterns and trends

- Socio-political ideologies and belief systems are sculpted by the words and rhetorical devices used in texts
Methods

- Systematic search - EBSCO host Newspaper Source Plus
- The Australian newspaper
- Articles 2000 – 2015
- Keyword “melanoma” in the heading
- Retrieved 19 articles
- Each article closely read & assessed for the presence of dominant themes and connotations.
- Three main themes were deciphered through critical appraisal of textual content and literary techniques employed to convey meaning.
- Close attention paid to the degree to which public health messages regarding melanoma and sun exposure were evident as a subtextual theme.
Results

Three dominant discourses:

1) New pharmaceutical agents
2) Melanoma - a terribly morbid prognosis
3) Genetic predisposition, Metastasis & disease trajectory
1. New Experimental Rx

- 53% (10/19) articles centered on breakthrough pharmaceutical developments

  "Exclusive breakthrough melanoma drug"

  "Shrank brain tumours in 90% of patients."

- Diction suggestive of a one-to-one ratio of effect

  "The drugs attack a mutated protein called BRAF, specific to melanoma cells, causing them to die, while sparing normal cells."

- Agents – vemurafenib, ipilimumab, pembrolizumab

Cresswell, A. Melanoma drugs point to “biggest breakthrough” in 50 years, The Australian, 05/11/2010.
2. Poor prognosis of melanoma

- 42% (8/19) articles strongly alluded to the significant mortality of the disease

- Life expectancy of those with metastatic disease
  - “six to ten months”
  - “the chances of 2 year survival being 10-20 per cent”

Cresswell, A. New drug can double melanoma survival, The Australian, 24/02/2012.
3. Genetic predisposition & disease process

- 63% (12/19) focused on mechanisms of disease at the familial genetic level
- 6/12 focused on the role of genetic susceptibility & gene mutation
  - “Gene puts 200,000 at risk of melanoma”
- Gene mutations
  - BRAF (which is in fact acquired V600E)

Reference to Public Health messages

- Primary measures were not the feature of any article.
- No reference made to skin checks.
- 3/19 conveyed some vague and indirect public health message or educational information.
- The word “sun” appeared in only two articles.
Discussion

- Driven by 3° measures
  - Novel experimental pharmaceuticals
- Negated importance of early diagnosis
- No dialogue concerning 1° & 2° interventions
  - Behavioural modification
  - Skin checks
- Failure to explicitly connect sun exposure as the 1° modifiable RF with MM
Reality vs Discourse

- Sinister media presentation of melanoma
  - However prognosis good when caught early

- Overall 5 year survival rate
  - ♀ 93% & ♂ 87%

- Stage IV disease (visceral metastases)
  - 9% five year survival

- Prognosis
  - Breslow thickness
  - Ulceration
  - Sentinel lymph node status
  - Local invasion
  - Distant metastases

Limitations

- Only appraised articles from one publication
- One snapshot of time
- Not necessarily indicative of what the wider public reads
- Does not indicate how members of the public reading these articles react to this discourse or how it might alter their behavior.
- In 2015 The Australian readership - 663,000,
  - 333,000 aged over 50

NB Daily Telegraph 599,000, SMH 724,000

Implications

- Results could be used to stimulate or re-ignite discussion among the profession about the implications of unbalanced information.
- Does the public health profession have a responsibility in this area?
- What drives health stories in the media?
Reflection

- Great impact on my own understanding of public health messages, vehicles & research methods.

- Self learning - how to conduct a discourse analysis, via reading multiple examples and applying methods of analysis to my own evaluation of texts.

- Enhanced my appreciation of AFPHM competencies:
  - Methods of health promotion and disease prevention
  - Research and evaluation
  - Cultural understanding
If you don't read the newspaper, you are uninformed; if you do read the newspaper, you are misinformed.

- Mark Twain
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References

- Clara Curiel-Lewandrowski. Risk factors for the development of melanoma. In: UpToDate, Post TW (Ed), UpToDate, Waltham, MA
- Cresswell, A. Melanoma drugs point to “biggest breakthrough” in 50 years, The Australian, 05/11/2010.
- Cresswell, A. New drug can double melanoma survival, The Australian, 24/02/2012.
- Cresswell, A. Ray of Hope offered in Melanoma fight, The Australian, 19/05/2012.
- Cresswell, A. TB jab cuts 60pc off risk of melanoma, 02/11/2009.
References

- Elks, S. One visit to solarium raises melanoma risk, The Australian, 15/01/2008.
- Hodges, B., Kuper, A., Reeves. Discourse Analysis. BMJ, 2008; 337;a879
- N.A. Newly discovered genes point to doubled risk of melanoma, The Australian, 07/06/2009.
- Pemble, L. On the Table – Melanoma, The Australian, 05/04/2003.
- Urban, R. PBS listing with strings for melanoma drug, The Australian, 22/05/2015.