

## Newspaper Coverage of Autism Treatment in Canada: 10-Year Trends (2004–2013)

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**Objective:** To compare trends in coverage of empirically supported and alternative autism treatments in Canadian newspapers over a 10-year period and examine whether the portrayal of empirically supported and alternative treatments differed.

**Method:** We searched a sample of 10 daily local and national Canadian newspapers using the word autism combined with intervention or treatment in the Proquest Canadian Newsstand and Eureka.cc databases, which yielded a total of 857 articles published between 2004 and 2013. In our subsequent analyses, we only included articles whose main topic was autism and that referred to at least one treatment. We then categorized the 137 remaining articles by treatment and rated whether each treatment category was portrayed in a favourable, unfavourable, or neutral manner.

**Results:** In total, 46% of articles discussed at least 1 empirically supported treatment, 53% at least 1 alternative treatment, and 12% at least 1 uncategorized treatment. Newspaper articles

provided favourable, unfavourable, and neutral portrayals of empirically supported treatments in 75%, 10%, and 16% of cases, respectively. In contrast, alternative treatments were portrayed favourably in 52%, unfavourably in 32%, and neutrally in 16% of cases. Our analyses indicated that empirically supported treatments were portrayed more favourably than alternative treatments ( $\chi^2 = 10.42$ ,  $df = 2$ ,  $P = 0.005$ ).

**Conclusions:** Despite some encouraging trends, our study has shown that researchers and clinicians must continue to clarify misconceptions about autism treatment. Families of people with autism spectrum disorders should be directed toward more reliable and accurate sources of information.

### **Clinical Implications**

- Newspapers should not be recommended as a primary source of information regarding autism treatment.
- Clinicians should support families of people with ASDs in their search for reliable and accurate information about treatment.

### **Limitations**

- We only focused on one source of information available to families (that is, newspapers).
- All treatments that were not considered as empirically supported by the research literature were categorized as alternative; however, some of these treatments may eventually become empirically supported as more research is conducted in the future.

**Key Words:** autism, Canada, media, newspaper, treatment

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### **Abbreviations**

ASD autism spectrum disorder

In the past 15 years, the fastest growing population of individuals with developmental disabilities has been those diagnosed with ASDs, which now represents about 1% of school-aged children in Canada.<sup>1,2</sup> ASDs are characterized by impairments in social communication as well as by the presence of repeated, stereotyped, or unusual behaviours and interests.<sup>3</sup> A large number of treatments have been proposed and developed to remediate these symptoms.<sup>4,5</sup> For example, parents reported using 111 different treatments with their children with autism in an Internet survey published in 2006.<sup>6</sup> Unfortunately, most of these treatments have no empirical support in the research literature<sup>4,6</sup>; as such, many families are investing significant resources in treatments that may not produce any beneficial improvements.

One source of information for families about autism treatment is newspapers.<sup>7</sup> In Canada, more than three-quarters of adults report reading a newspaper at least once per week.<sup>8</sup> As such, newspapers are an important source of information about mental health for the general population.<sup>9,10</sup> In a recent study on autism treatment in the United States, Schreck et al<sup>7</sup> found that newspaper coverage of an empirically supported treatment decreased over a 10-year period in comparison to alternative, nonvalidated treatments. Given that the previous study was restricted to the United States, we aimed to compare trends in coverage of empirically supported and alternative treatments in Canadian newspapers over a 10-year period, and examine whether the portrayal of these 2 treatment categories differed.

## **Methods**

### ***Newspaper Selection***

We selected a sample of 10 daily local and national newspapers among those with the highest circulation in Canada. Each city could only be represented by 1 local newspaper in our sample. To select newspapers, we first downloaded the 2012 Daily Newspaper Circulation Report from

Newspapers Canada<sup>11</sup> and ranked them by average daily circulation. Next, we went through the list in descending order and included newspapers with the highest circulation as long as the city was not already represented in our sample (for local newspapers only). However, the available online databases only allowed us to access articles from the last 60 days for *Le Journal de Montréal* and *Le Journal de Québec*. For these 2 cities, we thus included the newspapers with the second highest average daily circulation instead. Our final list contained the following newspapers: *Toronto Star*, *The Globe & Mail*, *La Presse – Montréal*, *National Post*, *The Vancouver Sun*, *Calgary Herald*, *Winnipeg Free Press*, *Ottawa Citizen*, *The Chronicle Herald – Halifax*, and *Le Soleil – Québec*.

### ***Search Procedures***

We used the Proquest Canadian Newsstand database to search most journals with the exception of *La Presse – Montréal*, *The Chronicle Herald – Halifax*, and *Le Soleil – Québec*, which we searched using Eureka.cc. Each newspaper was searched for articles containing the word autism combined with the key words intervention or treatment (in French for the journals from Quebec). Our search included all articles published over a 10-year period, from January 1, 2004, to December 31, 2013. For the *Winnipeg Free Press*, the search began in 2006 as it was the earliest date available in the database. The search yielded a total 857 newspaper articles. The second author reviewed each article to identify those that met our inclusion criteria. To be included in our analyses, the main topic had to be autism and the article had to refer to at least 1 treatment. We excluded articles that involved disability in general or focused on other topics related to autism such causes or service accessibility (for example, lawsuits, complaints, budget allocation, and governmental announcements). In total, 137 articles met our criteria for inclusion in the analyses. The third author, who remained blind to the original ratings, reviewed 30% of the

articles and rated whether they met the inclusion and exclusion criteria. We then computed interrater reliability for the inclusion of articles, which yielded a kappa value of 0.77.

### *Categorization and Analyses*

The second author read each article included in our analyses and recorded the 1 or more treatments that were discussed. Each treatment was then categorized as being empirically supported or not. We considered a treatment to be empirically supported if it was categorized as such or as an evidence-based practice by at least one of the following sources. Our first 2 sources were the Schreck et al<sup>7</sup> study and a recent comprehensive review published by the Autism Evidence-Based Practice Review Group.<sup>12</sup> The final 3 sources were systematic reviews of biomedical treatments for autism,<sup>13-15</sup> which were included as the first 2 sources excluded psychiatric drugs. Otherwise, the treatment was categorized as alternative. A handful of treatments remained uncategorized as they were either too broad or the article contained insufficient details for us to determine if they were empirically supported or not.

For each treatment category recorded within an article, the second author also noted whether it was portrayed in a favourable, unfavourable, or neutral manner. She provided a favourable rating when a treatment category was portrayed as promising, producing beneficial effects, or being recommendable, and an unfavourable rating when it was portrayed as unethical, ineffective, or unrecommendable. Articles that only provided information about a treatment (in a neutral tone), mentioned it without providing details, or included both favourable and unfavourable statements were rated as neutral. Then, we examined whether the portrayal of empirically supported and alternative treatments significantly differed using a chi-square test to compare the distributions with IBM SPSS version 20 (SPSS Inc, Chicago, IL). The third author also recorded the

treatments discussed and rated their portrayal for 26% of the articles. The interrater reliability kappa scores were 0.97 for treatments and 0.87 for the rating of the portrayal.

## **Results**

Table 1 presents a summary of the treatments covered by our sample of 10 newspapers from 2004 to 2013. A total of 39 different treatments were discussed in the articles: 2 treatments were empirically supported, 31 were not, and 6 remained uncategorized. The most frequently discussed treatments were based on applied behaviour analysis followed by diets and animal therapy. Figure 1 features trends in newspaper coverage for each category of treatment over a 10-year period. In total, 46% of articles discussed at least 1 empirically supported treatment, 53% at least 1 alternative treatment, and 12% at least 1 uncategorized treatment. The number of articles published on the topic peaked in 2007 before marginally decreasing; it remained stable for the last 3 years. Figure 2 displays whether the portrayal of treatments within each category was favourable, unfavourable, or neutral. Newspaper articles provided favourable, unfavourable, and neutral portrayals of empirically supported treatments in 75%, 10%, and 16% of the articles on the topic, respectively. In contrast, alternative treatments were portrayed favourably in 52%, unfavourably in 32%, and neutrally in 16% of cases. A chi-square test comparing these 2 distributions was statistically significant ( $n = 136$ ;  $\chi^2 = 10.42$ ,  $df = 2$ ,  $P = 0.005$ , suggesting that the portrayal differed across treatment categories. More specifically, empirically supported treatments were more likely to be categorized as favourable and less likely to be categorized as unfavourable when compared with alternative treatments.

## **Discussion**

Although newspaper articles reported treatments from both main categories in similar proportions and trends were comparable over the 10-year period, the portrayal of empirically

supported treatments was generally more favourable than alternative treatments. Our results are encouraging as a recent study conducted in the United States had shown less desirable trends<sup>7</sup>; that is, coverage of an empirically supported treatment decreased over time whereas alternative treatments were associated with a larger ratio of favourable-to-unfavourable statements.

Nonetheless, alternative treatments were portrayed favourably in most articles on the topic.

Moreover, the newspaper articles only covered 2 empirically supported treatments (applied behaviour analysis and atypical antipsychotics) even though many other supported treatments are available (for example, video modelling and social skills training).<sup>12</sup> As proposed by Whitley and Berry<sup>9</sup> for mental illnesses in general, these results suggest that clinicians should strongly recommend that families access other sources to seek more accurate information about autism treatment.

Our study is limited insofar as we only focused on one source of information available to families (that is, newspapers). In the future, researchers should consider including other sources of information in their analyses (for example, television or websites). Further, today's evidence-based treatments were yesterday's alternative treatments. Thus, some treatments categorized as alternative in our study may eventually become evidence-based as more studies are conducted.

Similarly, it should also be noted that some treatments (for example, animal and music therapies) may target secondary correlates of autism (for example, social isolation) rather than its core symptoms. Even though such treatments would have beneficial effects, they may not have empirically support in the research literature. Finally, future research may attempt to replicate the study with other common mental illnesses and disabilities to examine the generality of our findings.

## **Conclusions**

Despite some encouraging trends, our study has shown that researchers and clinicians must continue to clarify misconceptions about autism treatment. Families of children with ASDs should be directed toward more reliable sources of information about treatment. Health care providers should also support families in making sense of the many sources of contradictory information accessible to them.

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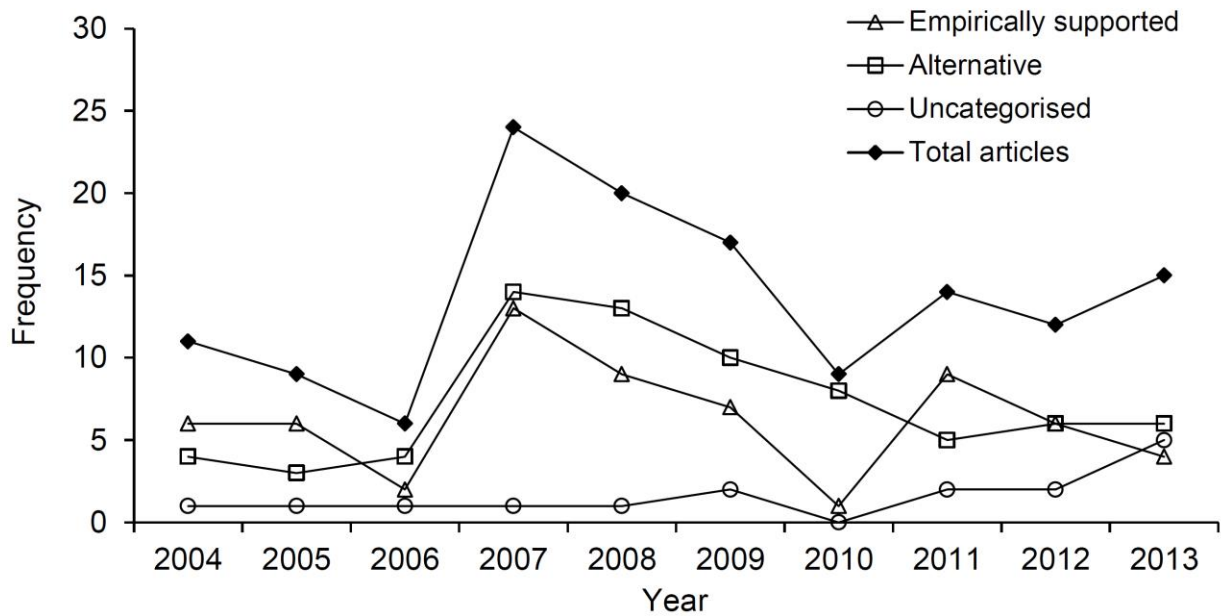
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**Table 1 Newspaper coverage of each treatment by category**

Treatments	Frequency	Percentage (%)
Empirically supported		
Applied behavior analysis	60	43.8
Atypical antipsychotic drugs (e.g., risperidone)	3	2.2
Alternative		
Diets	17	12.4
Animal therapy (including horse and dolphin therapy)	14	10.2
Chelation therapy	10	7.3
Homeopathy	5	3.6
Hyperbaric oxygen chamber	4	2.9
Music therapy	4	2.9
Secretin	4	2.9
Stem cells therapy	4	2.9
Floortime	3	2.2
Relationship development intervention (RDI)	3	2.2
Supplements	3	2.2
Therapeutic blankets	3	2.2
Defeat Autism Now	2	1.5
Electroconvulsive therapy	2	1.5
Holding therapy	2	1.5
Brainware reading technology	1	0.7
Chiropractic	1	0.7
Craniosacral therapy	1	0.7
Drama therapy	1	0.7
Delayed Vaccines	1	0.7
Hemi-Sync	1	0.7
Irlen lenses	1	0.7
Massage	1	0.7
Methylphenidate	1	0.7
Multi-sensory room	1	0.7
Neurofeedback training	1	0.7
Probiotic therapy	1	0.7
SCERTS Model	1	0.7
Son-Rise	1	0.7
TEACCH	1	0.7
Video games	1	0.7
Uncategorised (insufficient details/too broad)		
Speech therapy	13	9.5
Occupational therapy	4	2.9
Intensive multi-element treatment	2	1.5
Parent support courses	1	0.7
Play therapy	1	0.7
Unspecified drug	1	0.7

**Figure 1** Frequency newspaper articles discussed empirically supported, alternative, and uncategorised treatments from 2004 to 2013



**Figure 2** Frequency empirically supported, alternative, and uncategorised treatments were portrayed favourably, unfavourably, and neutrally across newspaper articles

